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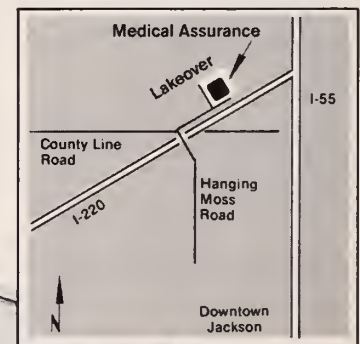
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NEWSLETTER

January 1987

Dear Doctor:

Almost half (48%) of American physicians believe they are unduly pressured to release Medicare patients early from the hospital, according to a recent survey commissioned by the AMA. The survey involved 1,000 randomly-selected physicians, and the sample included appropriate percentages of both AMA members and non-members and doctors of different ages and sexes.

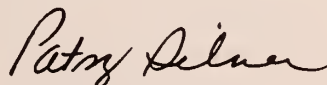
Fifty-six percent of the doctors said they felt their control over patient treatment decisions in the hospital had decreased in the last several years. The feeling of less control was especially pronounced among obstetricians/gynecologists (66%) but also common among surgeons, psychiatrists and general practitioners.

The survey also asked physicians whether patients had changed over the last three years, and 76% said patients are now "more knowledgeable about factors contributing to health" and "more concerned about costs of treatment." Sixty-three percent also believed patients are more demanding of their physicians than three years ago.

In a letter to the AMA clarifying its position, the U. S. Department of Justice has affirmed that good-faith peer review conducted by physicians on hospital medical staffs does not violate antitrust laws. "The Justice Department letter is not binding in court," Dr. James H. Sammons said, "but it is significant for its authoritative statement on the government's policy of promoting peer review and shielding peer reviewers from liability. More importantly, it encourages the AMA and other medical societies to continue to strengthen our commitment to strong peer review activities designed to provide patients with only the best care from competent physicians."

REMINDER: the MSMA is accepting applications for scientific exhibit space at the 119th Annual Session, June 3-7 in Biloxi. For information, contact the MSMA headquarters office.

Sincerely,



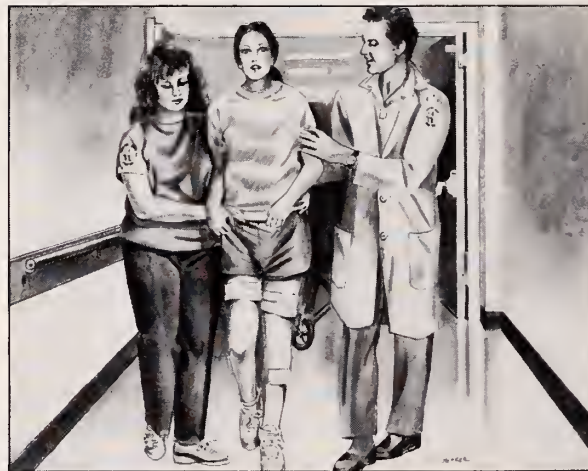
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DATELINE

Coalition Seeks Tort Reform

Jackson, MS - MSMA will join a coalition of business and industry groups seeking tort reform in the 1987 Mississippi Legislature. Among legislative proposals sought by the coalition are: abolishment of joint and several liability; limits on non-economic and punitive damages; reduction of the statute of limitations; and a deterrent against the filing and continuation of frivolous lawsuits.

MS Physicians Health Plan Begins Operations

Jackson, MS - The Mississippi Physicians Health Plan began operations early this month with the arrival of a nucleus staff from PHP of Ohio's management company. Initial plans call for meetings around the state with MSMA members to discuss operational activities, hiring of an on-site staff, and marketing activities. MSMA's HMO/IPA Board concluded contract negotiations in December for PHP of Ohio to serve as its management company.

ACEP Disappointed in CPSC Response to ATV Dangers

Dallas, TX - The American College of Emergency Physicians has expressed disappointment with the Consumer Protection Safety Commission for its weak response to the dangers of all-terrain recreation vehicles. The CPSC last month rejected the recommendation of its own ATV Task Force and instead called only for "voluntary standards" for limiting the sale of ATVs intended for use by small children.

Two Treatments Improve Psoriasis

Chicago, IL and New Orleans, LA - A study in the the December issue of JAMA reports that cyclosporine can be a highly effective treatment for psoriasis. Patients in a double-blind trial showed marked improvement or complete clearing after four weeks of high-dose cyclosporine therapy. A new drug, Oxsoralen-Ultra, released last month, can improve the effectiveness of PUVA therapy for recalcitrant psoriasis.

AAFP Says Sex Education Vital to Curb AIDS

Kansas City, MO - The American Academy of Family Physicians has endorsed and offered assistance to Surgeon General C. Everett Koop's initiative against AIDS through effective sex education in schools. The AAFP supports recommendations for comprehensive education in human sexuality at grade levels as low as elementary schools, not only because of concern about the threat of AIDS, but also other sexually-related health problems of youth.

Counsel to Authors

THE JOURNAL welcomes manuscripts which should be submitted to the Editors at 735 Riverside Drive, Jackson, MS 39216, in original and at least one duplicate copy. They must be typewritten double spaced on 8½ by 11-inch white paper. **Brief manuscripts (about 2,500 words or 8 pages) will be given preference over longer articles.**

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All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list. Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

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Illustrations consist of all material which cannot be set into type such as photographs, line drawings, graphs, charts, and tracings. Illustrations should be submitted separately from text copy. Figures and drawings should be professionally prepared with black ink on white paper. Photographs should be of high resolution, unmounted, untrimmed, glossy prints. Each must be clearly identified. No charges are made to authors for up to four illustration engravings. More are not permitted unless voted on by two editors and extra costs must be absorbed by the author.

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In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material.

A thesis summary of 75 to 100 words must accompany each manuscript.

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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*



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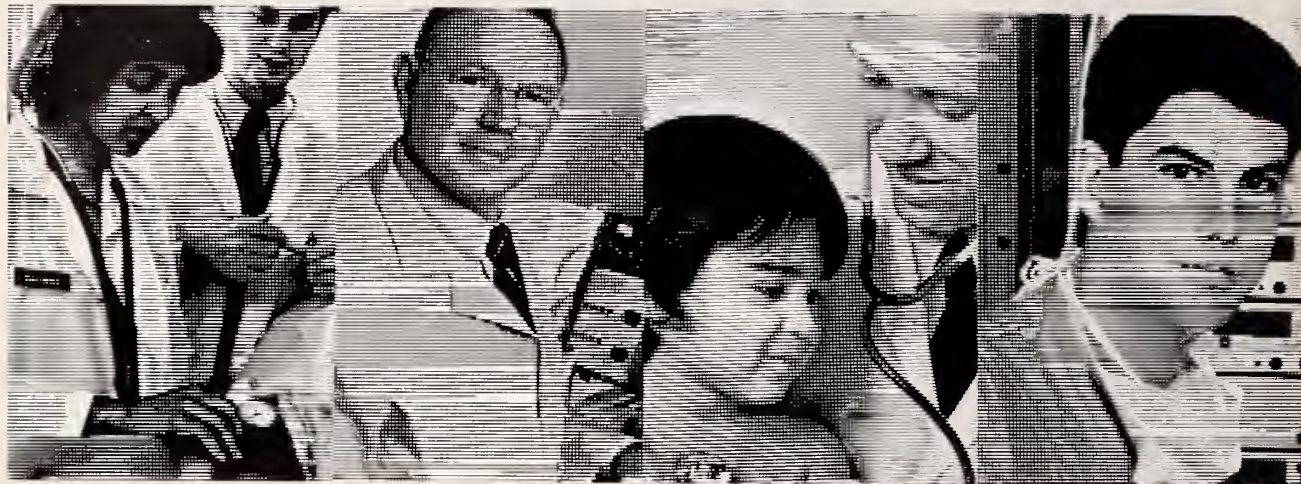
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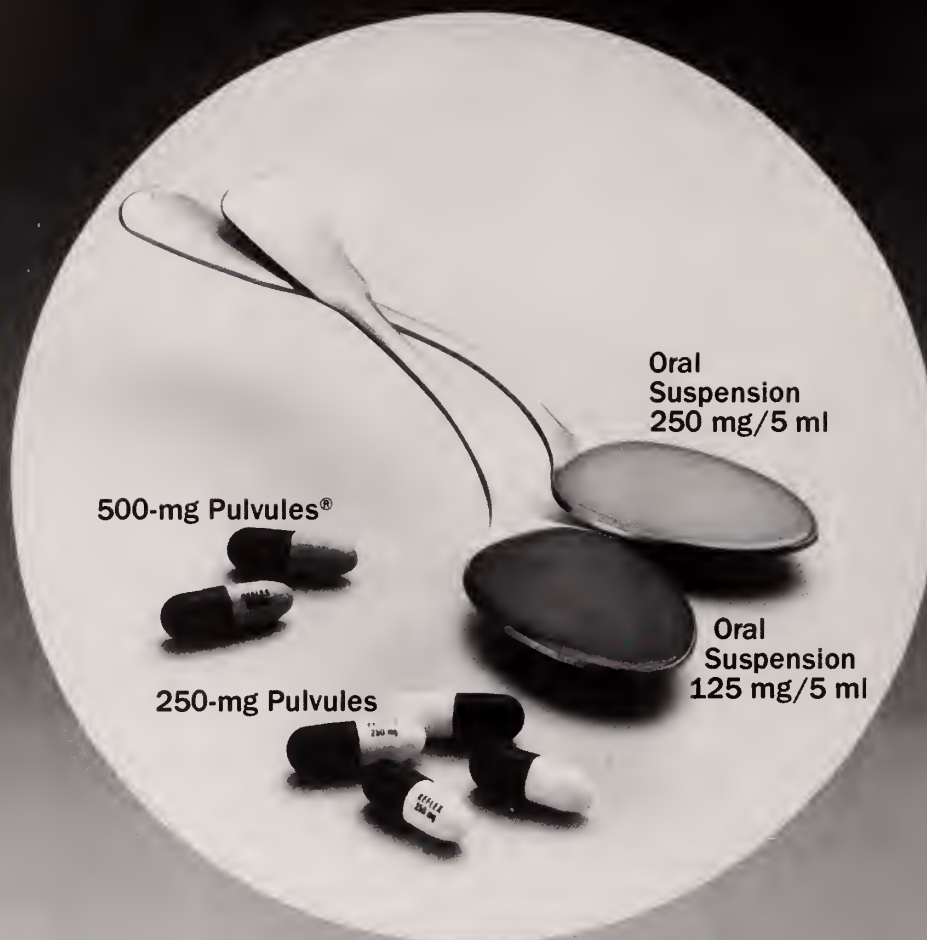
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ORIGINAL PAPERS

New Approaches for Continent Ostomy Construction

WILLIAM O. BARNETT, M.D.

Jackson, Mississippi

THE CONTINENT INTESTINAL RESERVOIR (CIR) is firmly established as a viable option for many patients undergoing coloproctectomy or for those individuals who are unhappy with their conventional ileostomy. Our experience now includes 238 cases. The initial 170 patients have been followed from one to eight years and a recent review revealed that 26 (15%) have necessitated additional abdominal operative intervention.¹ These patients all received an isoperistaltic valve. The reoperation rate for 675 cases of conventional ileostomy done at the Mayo Clinic was 18%.² Morowitz and Kirsner studied 1787 cases of conventional ileostomy done by surgeons nationwide and the reoperation rate was determined to be 23%.³

Problems Requiring CIR Revision

We were able to achieve a good result in 85% of our first 170 CIR cases after one operation. With two operations at most, this figure was elevated to 96%. Twenty-one (80%) of the 26 cases requiring revisional surgery had either a valve fistula (7 cases), pouch fistula (8 cases) or valve slippage (6 cases).

Valve fistula occurs when a defect develops at the base of the valve. The valve is effectively bypassed and incontinence results. There is considerable evidence to support the position that the in-

The use of a collar to encircle the base of the valve in continent intestinal reservoir construction has played a significant role in decreasing the incidence of valve slippage. Unfortunately, synthetic materials (Marlex, Gortex), which have been used for this purpose, have produced valve erosion and fistula formation in some cases. The author describes the use of a segment of adjacent intestine for collar construction in 35 cases. He reports that erosion and valve fistula formation have been eliminated. In addition to providing valve stability, the living collar also serves as a serosal patch over the fistula prone side of the pouch.

cidence of valve fistula is increased by the presence of inert (Marlex) material which is used to provide valve stability.

Pouch leakage may occur acutely during the early post operative period or later may manifest itself as an enterocutaneous fistula. The most common site of fistula formation is located at a point on the lateral aspect of the pouch where three suture lines intersect.

Valve slippage has represented the most troublesome CIR problem over the years. We are persuaded that the isoperistaltic valve has played a major role

From the Continent Ostomy Center, Jackson, MS. Dr. Barnett is engaged in the private practice of surgery in Jackson.

in decreasing the incidence of valve slippage among our patients. It is also probable that a collar of some type contributes to valve stability and is therefore desirable. We believe that these techniques have played a major role in lowering our valve slippage rate from 40% to 3%. A Marlex strip was first used but troublesome erosion of the valve encouraged us to explore the use of softer, inert meshes such as Gortex and Merseline. Unfortunately, these materials also engender tissue reaction and fistulization. These circumstances motivated us to explore the feasibility of using a segment of adjacent intestine for collar construction.

The Intestinal Collar

Our technique for continent intestinal reservoir construction is essentially the same as previously reported with the exception of collar construction.⁴ A segment of intestine about 8 cm in length is preserved below the area of pouch construction and the end is stapled closed (see Figure 1). It is then passed through a defect in the mesentery and coiled around the access segment where it is sutured in place (see

Figure 2). The lumen of the collar communicates freely with the pouch and allows free access of gas and liquid material (see Figure 3). When the pouch is full, the tense collar exerts a constricting effect at the time when pressure upon the valve is greatest.

Advantages of the Intestinal Collar

Use of the patient's own tissue for collar construction avoids inert material with potential erosion and valve fistula formation. It also provides an effective serosal patch along the vulnerable side of the pouch where leakage and fistulization are likely to occur in relation to the point where the three pouch suture lines intersect. Valve slippage is less likely to occur because the collar buttresses the valve mesentery as its base. This is, of course, the site where the valve slippage process is usually initiated. In addition, a "Nissen fundal plication-like" constricting effect results from increased collar pressure as it communicates with the full pouch.

Experience to Date

Thirty-five continent reservoir patients have now

LIVING COLLAR

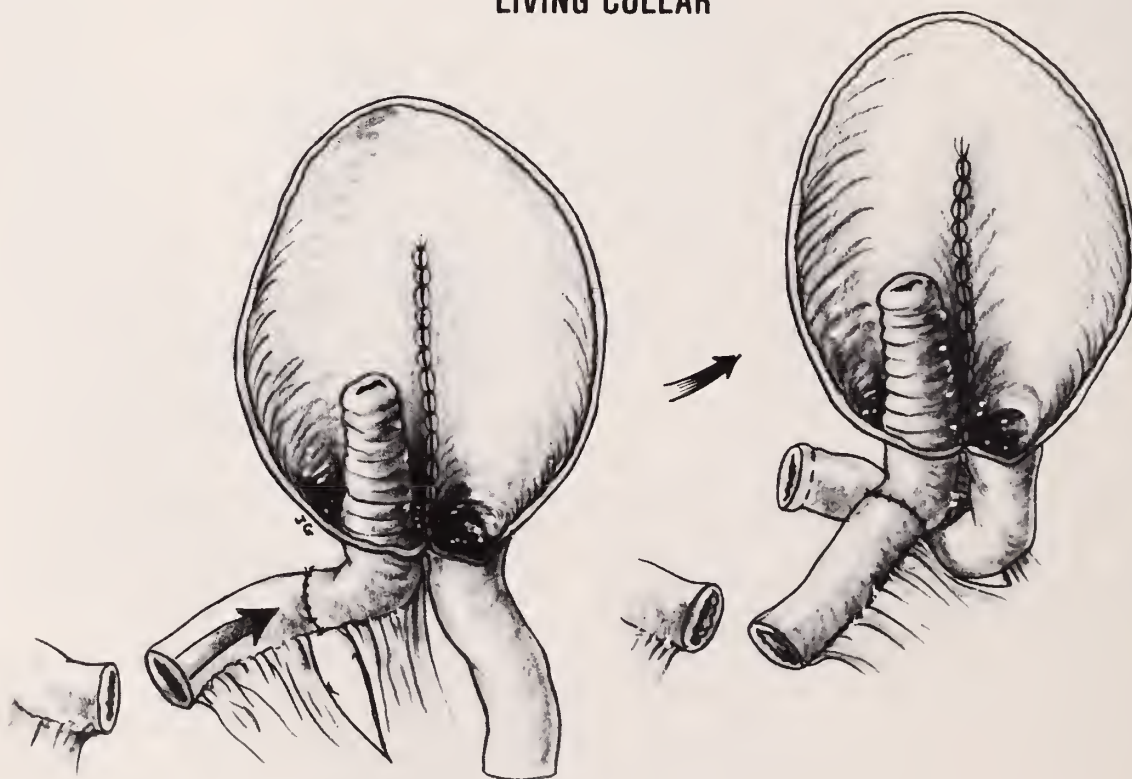


Figure 1. After valve intussusception is completed, a defect is created in the mesentery and the intestinal segment is passed through.

LIVING COLLAR

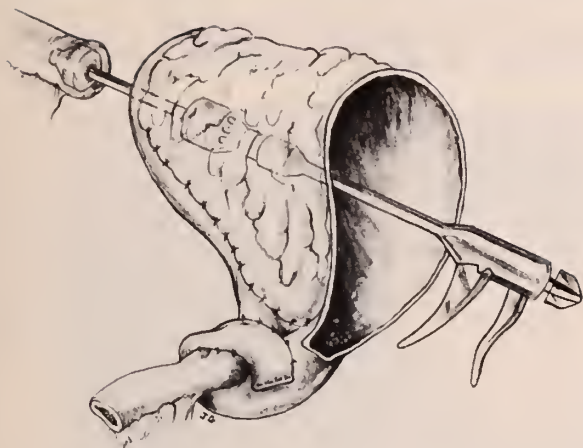


Figure 2. Intestinal collar completely encircles the access segment and is sutured in place.

LIVING COLLAR

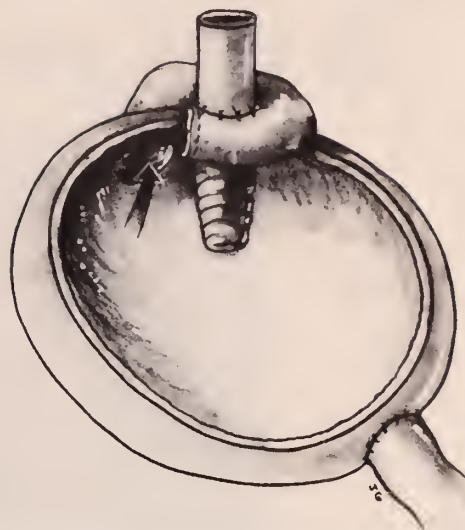


Figure 3. Lumen of intestinal collar communicates with the pouch allowing "Nissen" like effect when pouch is filled.

been provided with an intestinal collar. Twenty-two received the collar at the time of construction of the intestinal reservoir. Ten were fashioned during valve reconstruction among patients with existing pouches. The follow-up period is relatively short but none of these individuals have as yet experienced valve fistula, valve slippage or pouch fistula. Continued maintenance of these encouraging results could eventuate in a reoperation rate significantly lower than that heretofore achieved. ★★★

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3. Morowitz DA and Kirsner JB: Ileostoma in ulcerative colitis. *Am J Surg* 1981;141:370-375.
4. Barnett WO: Modified techniques for improving the continent ileostomy. *Am Surg* 1984;49:66-69.

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Obstetrical Manpower in Mississippi: Who Will Deliver the Babies?

F. M. WIYGUL, M.D.

W. R. GILLIS, M.D. and

H. T. MILHORN, M.D., Ph.D.

Jackson, Mississippi

THIS STUDY IS an examination of the medical manpower available for the practice of obstetrics in Mississippi now and in the immediate future, as shown by surveys done by the Department of Family Medicine at the University of Mississippi Medical Center. Surveys were done in 1980-1981, 1983 and in 1984-1985 to ascertain the extent of participation in obstetrical practice by family physicians and general practitioners to better determine training needs for physicians in these categories. The survey in 1984-1985 also included obstetricians. These surveys are used to estimate the physician manpower pool available for obstetrical deliveries now and in the immediate future.

Mississippi is a largely rural state with a relatively stable birth rate of about 43,000 births per year. For the reader unfamiliar with the history of maternal and child health care in the state, it may be helpful to review briefly changes in obstetrical care in the recent past that are directly influencing our need for medical manpower in the practice of obstetrics. Historically, most of the deliveries in rural areas, especially among the economically disadvantaged, were attended by lay midwives. An early public health measure in Mississippi was the introduction of a system for training and certification of these midwives by the Public Health Department through its county health nurses. This was begun in 1923 and was followed by a long period of decline in maternal and infant mortality rates, although these rates were still very high by modern standards. As recently as the early 1960's, about one third of the births in Mississippi were attended by these state certified lay midwives. In addition, most physicians

Surveys done by the Department of Family Medicine at the University of Mississippi Medical Center indicate that fewer family physicians and general practitioners are including obstetrics in their practice than in past years. In addition, these surveys indicate that a large number of physicians now doing obstetrics plan to discontinue the obstetrical part of their practice within the next five years.

According to the authors, these projections suggest that planning is needed to provide the medical manpower for future obstetrical care in Mississippi.

in general practice (and most physicians were general practitioners) attended deliveries in local hospitals, in private clinics and in homes. Almost all community hospitals had a delivery suite or beds devoted to obstetrical services.

Deliberate policy changes by state and federal agencies, operating in the first instance by statutory authority and in the second by health grants and appropriations, plus economic changes and population shifts away from rural areas to the larger towns resulted in the rapid disappearance in the 1960's and 1970's of the old system of lay midwives. The steady decline in the number of practicing lay midwives forced the state health department, through its county units, to look to the primary care physician and the local hospital for delivery services for the indigent patients who came to the county health departments for prenatal care, thus overloading the existing system with patients who had no way to pay for services. This resulted in a

From the Department of Family Medicine, University Medical Center, Jackson, MS

much larger percentage of newborns being delivered in hospitals, causing local hospitals to become overburdened with patients who could not pay for care.* During this same period, many of these same hospitals were closing down their obstetrical beds because of the high costs of providing care of this kind.

Results

A survey of 600 family physicians and general practitioners in 1980-1981, with a 73% response, indicated that 31% of the total group included obstetrics in their practice. This survey further indicated that physicians who classified themselves as "family physicians" were more likely to do obstetrics than physicians who classified themselves as "general practitioners" (64% to 37%). A similar survey of residency trained family physicians† in 1983 indicated that 33% of respondents included obstetrics in their practice. Thus, all family physicians trained for primary obstetrical care do not choose to do obstetrics.

A 1984-1985 survey of primary care physicians which included family practitioners, general practitioners and obstetricians elicited a 59% response from 970 physicians, which indicated that 40% of the total group included obstetrics in their practice, while a somewhat higher percentage of these physicians (53%) has included obstetrics in their practice within the last five years. In the three physician groups, 23% of the general practitioners, 35% of the family practitioners and 95% of the specialists in obstetrics and gynecology are currently practicing obstetrics. Of the same groups, 41% of the general practitioners, 31% of the family physicians and 5% of the obstetricians-gynecologists have given up obstetrics in the past five years. Of those currently practicing obstetrics, 30% of the general practitioners, 23% of the family physicians, and 23% of the obstetricians expect to discontinue their obstetrical practice within the next five years. (See Table I.) Thus, of the physicians available for obstetric practice in 1980, a reduction of 71% of the general practitioners, 54% of the family physicians and 28% of the obstetrician-gynecologists practicing obstetrics can be projected by the year 1990 if present trends continue. If these projections are applied to

the total manpower pool available for obstetrical practice, we find that in the last five years there has been a 13% reduction in obstetrical manpower, with at least 125 fewer physicians delivering babies than in 1980. In addition, 23% of the physicians who practiced obstetrics in 1985 expect to no longer do so by 1990. With a total obstetrical manpower pool of around 470 physicians, a 23% reduction would amount to 108 physicians who presently practice obstetrics but expect to no longer do so within the next five years. The main reasons physicians give for planning to discontinue their practice of obstetrics are given in Table II. There are no surprises here. As may be expected, the cost of malpractice insurance and the threat of litigation lead the list.

Now, to examine the implications of manpower changes for those giving obstetrical care, and especially for those who are seeking obstetrical care, let's look at how the existing pool of obstetrical manpower manages its present case load. From our surveys, we believe there are approximately 400 physicians who presently deliver babies. Of these, 57% are family physicians and general practitioners, while 42% are obstetricians. If we look at the number of deliveries done by the respective physician groups, based on our surveys we find that the median number of deliveries for obstetricians is around 200 cases per year, while the median number of cases for family physicians and general practitioners is about 50 cases per year. From this we may calculate that around 33,000 infants are delivered by obstetricians and around 11,000 are delivered by other physicians, especially family physicians and general practitioners. This projection results in a slight over-estimation of the total number of deliveries, which is probably accounted for by the physicians' over-estimation of the number of deliveries they actually do and by the use of computer listings for physicians that contain names of some who are no longer in practice.

From the above figures, then, we can expect that there will be a reduction in the number of physicians in the state who include obstetrics in their practice. This reduction in number will occur in all categories of physicians who presently deliver babies. If we apply the predicted decrease in obstetrical manpower to the expected case load in 1990, we find that there will be around 100 fewer physicians practicing obstetrics, resulting in approximately 10,000 patients who will require care either by additional physicians entering into obstetrical practice, redistribution of case loads, use of para-medical manpower or by some combination of these methods of care.

* 46.1% of infants were delivered in hospitals in 1950, while by 1980 99.4% of births were in hospitals.

† Graduates of the University of Mississippi Family Medicine training program who completed three years of training.

TABLE 1
SUMMARY OF PHYSICIAN SURVEY

	<i>Obstetricians</i>	<i>Family Physicians</i>	<i>General Practitioners</i>	<i>Total</i>
Number of Respondents	101	278	113	492
% doing OB	95%	35%	23%	41%
% giving up OB in past 5 years	5%	31%	41%	13%
% expecting to give up OB next 5 years	23%	23%	30%	26%
Expected loss — 1980-1990	28%	54%	71%	52%

TABLE 2
REASONS FOR THE DISCONTINUANCE
OF PRACTICING OBSTETRICS

	<i>Obstetricians</i>	<i>Family Physicians</i>	<i>General Practitioners</i>
Cost of Liability Insurance	23.5%	17.6%	11.8%
Threat of Litigation	19.6%	13.7%	13.7%
Time Demand	17.6%	17.6%	9.8%
Lack of Training	0.0%	2.0%	2.0%

On further examination, our projections show the shortfall in five years will be approximately 58 family physicians and general practitioners and about 40 obstetricians. Since obstetricians appear to average about 200 deliveries per year per physician, while family physicians and general practitioners average about 50 per year per physician, it will be most difficult to compensate for the projected 40-man shortfall in obstetricians. If the present number of obstetricians is maintained by recruitment into this field, in spite of the number who expect to discontinue their practice of obstetrics, and if the expected number of family physicians and general

practitioners completely discontinue the practice of obstetrics, 14 additional obstetricians will be required. This number, plus the 40 obstetricians who expect to discontinue practice within five years, means that approximately 54 additional obstetricians will be required within the next five years in order to manage the expected case load. (The UMC Department of Obstetrics and Gynecology now accepts about five residents per year for training.) If, on the other hand, the number of obstetricians required is not available, due to either supply or distribution, the encouragement of family physicians and general practitioners to retain obstetrics as part of their practice will be needed. This will have to be accomplished by reducing some of the factors which presently are influencing their decision to no longer deliver babies. ★★★

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Hospital Credentialing

REBECCA B. COWAN, J.D.

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Jackson, Mississippi

A HOSPITAL PEER REVIEW committee determines that a physician on its staff should be disciplined for unprofessional conduct. The committee reports this action to the Mississippi State Board of Medical Licensure as required under Mississippi law.¹ The physician retaliates by filing suit against one or all members of the peer review committee. This article addresses what protection is provided a committee member under Mississippi and federal law while serving on a hospital peer review committee. It also discusses what steps a committee member can take to protect himself from possible lawsuits while serving on the committee.

Actions in State Court

The dissatisfied physician may bring suit against a committee member under several causes of action. If the physician has been exercising his staff privileges at a privately funded hospital, his remedies are limited to those afforded him under common law or state law. He may bring a cause of action for libel or slander against the committee member and seek damages from that member. He can accuse the member with bias and seek a court order reinstating his staff privileges.² The physician may also bring a cause of action against the committee member for tortiously interfering with an existing or potential business contract he held with a patient or with the hospital itself.³

The committee member will then be required to defend these actions. In his defense, he can claim the immunity provided him under Mississippi law for any action he takes while serving on the committee. The statute setting forth this immunity reads as follows:

Any entity, organization or person, including the board, any member of the board, its agents or employees, and including any entity or organization or its members referred to in Section 73-24-83, acting without malice in making any report or other information available to the board pursuant to law, or who assists in the organization, investigation or preparation of such report or information, or assists the board in carrying out any of its duties or functions provided by law shall be immune from civil or criminal liability, except that unlawful disclosure of confidential information possessed by the board may be a misdemeanor if otherwise so provided by law.⁴

This statutory immunity, however, can be defeated by the dissatisfied physician simply alleging that the committee member acted with malice. The committee member must then attempt to establish through discovery and pleadings prior to trial that he did not act with malice. If the physician fails to submit some proof of malice, the member will then be allowed to cloak himself with this statutory immunity and have the suit dismissed.

Actions in Federal Court

The dissatisfied physician may attempt to defeat the immunity provided under Mississippi law by bringing a federal cause of action against the committee member. The most common federal action is a civil rights action. The physician may sue the committee member in federal court for a violation of his civil rights under the Civil Rights Act of 1871, 42 U.S.C. Section 1983 or Section 1985. He may sue the committee member in his individual or official capacity and the committee member cannot claim the statutory immunity allowed him under state law. Instead, he has only qualified immunity under federal law. To claim this qualified immunity, he has to establish that his conduct did not violate clearly established law.⁵

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Civil Rights Actions

There are two essential elements the physician has to allege when filing a civil rights action. First, he must allege that the committee member acted under color of state law or was considered a state actor at the time of his conduct. Second, the physician must allege that the committee member violated his constitutional rights.⁶

State Actors

The physician may allege that the committee member acted under color of state law by abusing a statutorily prescribed procedure available to the member under Mississippi law. He may allege that the committee member should be considered a state actor because he acted in concert with or conspired with a state or local government official. More frequently, the physician will simply allege that the committee member serves on a committee of a hospital that receives federal funds, and that this makes him a state actor. Some courts have held that committee members serving on peer review committees of a private hospital receiving federal funds under the Hill Burton Act or from Medicare and Medicaid payments are state actors and are subject to civil rights action.⁷ Other courts, however, have required more than the receipt of these federal funds before classifying the committee member as a state actor.⁸

Constitutional Claims

A dissatisfied physician who has been denied staff privileges or who has had his privileges limited or revoked may allege that he has been denied equal protection of the law under the Fourteenth Amendment to the United States Constitution by being treated differently than other physicians because of his race, origin, or sex. More frequently, the physician will claim that he has been denied his constitutional rights under the Fifth and Fourteenth Amendments to the United States Constitution by being denied his rights to due process.

Procedural Due Process — Property Interest

This constitutional claim usually rests on allegations that the physician has been denied a right to procedural due process. This right requires that the physician be given proper notice of any meeting on the status of his staff privileges and that he be given an opportunity to be heard at this meeting. In other words, before the physician is disciplined by a peer review committee at a federally funded hospital, and before the peer review committee reports its disciplinary decision to the Mississippi State

Licensure Board, the physician must be afforded an opportunity to be heard.

In order for the dissatisfied physician to allege that he has been deprived of his property interest in his staff privileges at the hospital without due process of law, he must establish that he had a vested right to those staff privileges. He cannot claim that he held a right to hold staff privileges at a hospital simply because he obtained a medical license from the state to practice medicine.⁹ However, once he has been granted staff privileges, he may have a vested property interest in retaining those privileges.¹⁰ A regulation or a decision by the peer review committee that limits or revokes those privileges may then deprive him of that property interest.

Courts, however, have usually exercised wide latitude when deciding whether a decision by a peer review committee has deprived a physician of his property interest. Most courts have allowed a hospital review committee to enforce whatever regulations it deems necessary for staff privileges at the hospital. Courts have usually determined only whether a denial of staff privileges or a removal of staff privileges by a peer review committee in accordance with hospital regulations was reasonably related to the operation of the hospital and was fairly administered.¹¹ Courts have refused to interfere with a decision by a hospital peer review committee to enforce certain regulations on a physician seeking staff privileges at a privately funded hospital unless the regulations are unreasonable.¹²

In a procedural due process cause of action, a court will review only the procedures adopted or exercised by the committee while taking the action against the physician. It will examine whether the physician was given reasonable notice of the charges against him prior to any action being taken against him and whether he was given a fair opportunity to be heard before a panel of fair-minded committee members. If the physician claims that he has been deprived of his liberty interests in his reputation, the court will examine whether information disseminated during the course of the proceedings has damaged his reputation. The physician is to be afforded only a hearing on these charges, not a full-blown trial.¹³

Procedural Due Process — Liberty Interest

In addition to an allegation that he has been deprived of his property interest in his staff privileges, the physician may also claim that he has been deprived of his liberty interest without due process of law. The physician has a right to not have his reputation in the medical community slandered or li-

beled before, during or after a meeting held to determine the status of his staff privileges. If damaging information about his reputation is disseminated by any or all of the committee members, he may have a claim for the deprivation of his liberty interest without due process of law.

Substantive Due Process

In his civil rights action against one or all of the committee members, the dissatisfied physician may allege that his substantive rights to due process have been violated. For example, the physician may allege that he was disciplined or unfavorably reviewed by a peer review committee because he exercised his right to free speech by criticizing or commenting on matters at the hospital he considered of public concern.¹⁴ Although he may have been given proper notice of a meeting held to discuss his continued staff privileges and been afforded the right to be heard, he may still have a cause of action for a violation of his First Amendment rights. In other words, the physician cannot have his staff privileges revoked because he has spoken out on a matter of public concern either at the hospital or in other areas. Courts, however, have allowed First Amendment protection only to speech that is related to matters of public concern.¹⁵

Avoiding Civil Rights Actions

There are several ways a hospital peer review committee can avoid possible litigation when determining the status of a physician's staff privileges at the hospital. The following procedures are suggested:

1. The physician should be given notice of any public or formal meeting the committee may hold to discuss his conduct.
2. This notice should set forth the time, date and place of the meeting.
3. The notice should set forth as specifically as possible the conduct the committee plans to review.
4. The physician should be notified that if he desires, he may bring his attorney with him to the meeting and that he may bring witnesses to appear on his behalf at the meeting.
5. The physician should be given the names of any persons appearing at the meeting at the request of the committee who will be questioned about the physician's conduct.
6. The meeting should be transcribed by a court reporter to protect the committee should there be a question of what was actually said at the meeting.
7. If any detrimental or adverse information about the physician is disseminated to the public before, during, or after the meeting, the physician should be given an opportunity to clear his name at the initial meeting or at a later meeting.¹⁶

Some courts have held that a privately funded hospital can protect its members against any liability by requiring any physician joining its staff or obtaining staff privileges at its hospital to sign a release or execute a grant of absolute immunity to the hospital or its representatives.¹⁷ This release would give each committee member complete protection and the physician would not succeed in his suit even if he could establish malice by one of the committee members. A release of this nature, however, could not be used by a committee member in defending himself in a civil rights lawsuit because courts have consistently held that such a release does not include a waiver of constitutional rights.

There are several day-to-day procedures that can be utilized by a peer review committee at a privately or federally funded hospital to protect its members from liability while disciplining a physician. First, the committee should document each action or decision it makes in writing. This can easily be done through the committee minutes. The committee, however, should exercise caution with the information placed in these minutes. The information should be as factual as possible and should not contain libelous language.

Second, the committee should be discrete when dealing with the physician. Each member should confine his remarks about the physician's conduct to the committee meetings held to discuss that conduct. No committee member should make any public statements about the physician's conduct. Any information received by the committee during its investigation of the conduct by the physician should not be disseminated to the public and should be provided only to agencies requiring the information.

Third, each committee member should receive copies of all correspondence or communication the committee chairman or other members of the committee have with the physician. Each member should also be kept fully apprised of any developments that occur while the physician is being investigated. It is suggested that all correspondence between the committee and the physician be sent by certified mail. The physician should be given notice of the meeting or meetings the committee holds to review his conduct by certified mail, restricted delivery.

Fourth, should the committee determine that it should enter into a closed meeting to discuss certain aspects of the physician's conduct, the committee minutes should carefully reflect the purpose of the closed meeting and should set forth the general information discussed during that meeting. Fifth, the committee members should be direct and professional when confronting the physician with his un-

professional conduct. The members should work together in their efforts to discipline the physician. No committee member should appear to be acting on behalf of the entire committee. If the committee members carry out their duties of disciplining the physician in a professional and unified manner, the physician will have a hard time proving that the members acted with malice in disciplining him.

Finally, the most important procedure is one that should be utilized by the hospital granting the physician staff privileges. The hospital should have a manual setting forth its employee and staff policies and procedures and distribute one to each employee, staff member, and committee member at the hospital. These policies and procedures should set forth the rules and regulations the hospital intends to apply to each of its employees and staff physicians. The policies should describe the behavior the hospital expects from its employees and staff physicians. These policies should also set forth the goals the hospital desires to achieve through its employees and staff physicians.

The regulations adopted and distributed by the hospital should set forth the steps whereby an employee or staff physician can be disciplined when he fails to comply with these policies. These steps should be simple and concise, and should be followed by each member of a peer review committee when investigating or disciplining a hospital employee or staff physician.

These policies should be reviewed and updated each year by both the hospital personnel director and the various committee members. By adopting and updating these policies and procedures, the hospital provides definite guidelines to be followed by

its peer review committee when disciplining its staff physicians. The peer review committee can simply inform the staff physician that it is investigating him for violating one or more of these policies and then follow the proper procedures in investigating and disciplining the physician. With this assistance from the hospital, the peer review committee can operate in a more professional and efficient manner and can shield its members from liability when disciplining a physician for unprofessional conduct. ★★★

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The President Speaking

Read This: DRG's for Physicians

W. JOSEPH BURNETT, M.D.
Oxford, Mississippi

Well the issue of DRG's for physicians is sticking up its head again. If you've read the recent news, the OMB is again proposing DRG's for physicians and has an apparent nod of approval from the President. I seriously doubt you need to be advised of the catastrophic impact this would have on traditional fee-for-service and on your practice.

You may ask, how can I individually make a real difference in opposing DRG's for physicians? In my opinion there are three primary ways to express your opposition. Each, I think, has very comparable effectiveness not only on this but also on other issues.

1. Accept your responsibility as your patient's advocate and continue to promote quality care for your patients. Once your patients are aware of the potential loss of the services provided by modern health care — they will join you in your opposition.
2. Although some of you find political involvement distasteful, if you don't let your U. S. Congressmen know how you feel, they may assume you don't object! Call, write, and personally contact *all* the members of Mississippi's Congressional delegation. If you don't have their telephone numbers or addresses, call our MSMA office, 1-800-682-6415. If you don't make contact and express your feelings, be prepared to accept the consequences.
3. Continue to support AMA. Even though a few objected to unification, this again reminds us of the need for a strong national force to represent us. In order to maintain AMA's "Force" — your "Force" for AMA is imperative!

EDITORIALS

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

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Hospital Credentialing Issues

While in medical school in the late 1950's we were repeatedly instructed on the art of practicing medicine. This art consisted primarily of establishing a good doctor-patient relationship and caring for and about the patient. There were no lectures on medical-legal arts, the art of business management, the art of public relations, the art of practicing co-operative medicine, the art of practicing in a partnership, or the art of negotiating with third-party agents.

All of these additional "arts" have evolved over the past thirty years, and each occupies a prominent part of an on-going medical practice. One of these, the art of medical-legal practice, or more specifically, the art of protecting your practice, now occupies a significant portion of any physician's time. One specific problem in this area is addressed in the current issue of your JOURNAL in which Cowan and Montgomery discuss the issue of Hospital Credentialing.

Recently the Joint Commission on Accreditation of Hospitals (JCAH) revised its standards for Hospital-Medical Staff Privileges. Prior to 1985, hospital staff membership was limited to fully licensed practitioners of medicine and dentistry. Since January 1, 1985, the revised standards set forth by JCAH allow hospital staff privileges to be granted to fully licensed physicians and "other individuals

permitted by law and by the hospital to provide patient care services independently in the hospital." This significant change places a much greater burden upon a hospital and its staff members, particularly those serving on credentialing committees, to be fully aware of the medical-legal ramifications of the actions taken by such committees. The article by Cowan and Montgomery is very timely and informative and demands a thorough study by all hospital staff members.

MYRON W. LOCKEY, M.D.
Editor

Guest Editorial

Steps Needed to Curb Prescription Abuse

The national attention concerning drug and alcohol abuse is starting to pay off with more sensitivity to the problems of individuals and a crack-down on the drug peddlers.

But with all of the nationwide attention on cocaine and the other major addictive drugs, the problems of "legal" prescription drug abuse has seemed to remain in a lesser category.

That is why it is encouraging that a group of Mississippi officials and health care professionals has recommended steps to get at unethical doctors and pharmacists who illegally dispense prescription drugs.

The Prescription Abuse Data Synthesis Project presented a report to Gov. Bill Allain late last week aimed at improving Mississippi's ability to stop prescription drug abuse.

The group recommended that:

- The Legislature grant greater investigative

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powers to the Board of Medical Licensure concerning illegal prescriptions.

- An additional investigator be hired. There currently is a 100-case backlog of complaints against doctors.

- The governor appoint a task force to develop ways to crack down on physicians and pharmacists who improperly dispense drugs.

- New laws be passed to prevent doctors from continuing to dispense drugs after their licenses have been revoked and their cases are on appeal.

- The Legislature update its controlled-substance list.

Most doctors and pharmacists don't dole out prescription drugs improperly. The ones that do, however, can do great damage. Officials estimate that

70 percent of the prescriptions sold on the streets are illegally obtained from doctors and pharmacists.

The improper prescribing of drugs does not always come from those seeking to make money by pushing pills. Some doctors and pharmacists are unwittingly taken in by patients and some are incompetent or ill by addiction.

The result is the same — the drugs are abused and people get hurt.

The recommendations by the group are reasonable.

The governor and Legislature should follow through on the suggestions to help stop the "legal" drugs from adding to the overall drug abuse problem in the state. (*Reprinted, with permission, from the Clarion-Ledger, December 1, 1986.*)

Medico-Legal Brief

Legal Counsel For The Medical Staff

Should a hospital medical staff hire its own attorney when dealing with the hospital governing board or bettering the conditions under which medicine is practiced in the hospital? This has been a topic of debate on health law programs dealing with physician hospital relationships and is one on which lawyers express differing viewpoints.

The AMA House of Delegates has adopted the position that the Association strongly recommend that hospital medical staffs retain their own attorneys so that the medical staff will have its own legal advocates for guidance in appropriate circumstances. Retention of legal counsel by organized medical staffs has increased in some areas of the country and is considered on an issue by issue basis in others. To decide when an organized medical staff may need to retain legal counsel, a few words of advice may be useful.

The activities of the organized medical staff as described in the medical staff bylaws are the hospital's activities, but the medical staff may also engage in activities on its own behalf that are not in conflict with hospital patient care functions. The medical staff functions as a fundamental organizational unit of the hospital in establishing standards of quality medical services and carrying out peer review functions to assure maintenance of those standards. It also functions as an organized unit in carrying out activities to protect its interests and the interests of the individual members in improving

conditions for practicing medicine in the hospital and improving the climate for that practice. In this latter role, the medical staff activities cannot be in conflict with hospital patient care interests and functions, however.

If the medical staff in conducting self-interest activities believes that the hospital attorney cannot adequately represent both it and the governing board, the medical staff can and should retain its own attorney. The medical staff should be aware, however, that just as physicians are highly specialized, so are attorneys. A medical staff will not be well served by an overly aggressive attorney whose primary record of success is in the courtroom but has little experience or interest in the continuing relationship of the hospital and its medical staff. The interests of the medical staff and the hospital are not well served unless the goal of the medical staff is to have ongoing cooperative relationships and good communication.

If the medical staff believes that a revision of the bylaws may create a conflict with the governing board, or if the medical staff believes the hospital attorney cannot adequately represent its interests and votes to retain its own legal counsel, an attorney with experience in hospital and physician legal matters should be selected. Whether the medical staff should retain the attorney to sit at its meetings or to provide written opinions on occasion or to review the bylaws will depend upon what is occurring at the hospital.

If there is a dispute between the medical staff and the hospital administration or governing board, the

(Continued on page 20)

MEDICAL ORGANIZATION

PADS Report Presented to Governor

A report identifying the nature and extent of the prescription drug abuse in Mississippi was presented last month to Governor Bill Allain by MSMA President-elect Dr. W. Lamar Weems of Jackson. The report makes several recommendations for improving Mississippi's ability to control prescription drug abuse.

Represented in the report is the work completed by more than a dozen state agencies and health care professional associations during the past year on the Prescription Abuse Data Synthesis (PADS) Project. PADS was developed by the American Medical Association to identify prescription drug diversion problems at the state level.

"The project was begun in April, 1986 after the Mississippi State Medical Association requested technical assistance from the AMA in implementing the PADS project," said Dr. Weems.

Three of the report's recommendations are designed to improve the regulations of the prescribing and dispensing of prescription drugs. The report recommends increasing the investigative capacity of the Board of Medical Licensure, to be funded by an increase in medical license fees. In addition, the report suggests that the laws concerning appeals of regulatory board actions be changed to enhance the board's ability to protect the public. The report also calls upon Governor Allain to urge the Board of Medical Licensure to adopt regulations concerning physician dispensing of prescription drugs.

The PADS report seeks the governor's support for legislation that would place the drugs Nubain and Stadol in the schedules of controlled drugs.

The PADS Policy Group urged the governor to appoint a Prescription Drug Abuse Task Force to continue the work begun in the PADS Project.

The PADS Project was coordinated by the PADS Policy Group. The Policy Group membership included the associations of all health care professionals who prescribe, dispense or administer prescription drugs, as well as all of the state agencies that regulate those professions, treat and prevent drug abuse, enforce drug laws or pay for prescription drugs.

The recommendations made by the Policy Group were developed after studying the work performed

by two subgroups. The PADS Technical Group performed a statistical study of the nature and extent of the prescription drug abuse problem in Mississippi. The PADS Regulatory/Enforcement Group inventoried the resources and procedures to control diversion of prescription drugs. This group also performed a series of investigations of suspicious prescribers and dispensers of these drugs.

The following agencies and organizations participated in the PADS Project: MS State Medical Association, MS Impaired Professionals Program, MS Department of Health, Governor's Office of Federal State Programs, Department of Planning and Policy, Office of the Attorney General, MS Board of Dental Examiners, MS Board of Medical Licensure, MS Board of Nursing, MS Board of Pharmacy, MS Board of Veterinary Examiners, MS Bureau of Narcotics, MS Department of Safety, MS Department of Mental Health, Division of Alcohol/Drug Abuse, MS Hospital Association, Division of Medicaid, Office of the Governor, MS Nurses' Association, MS Pharmacists Association, MS Veterinary Medical Association, and United States Drug Enforcement Administration.



Representatives of the PADS (Prescription Abuse Data Synthesis) Project presented a report and recommendations to Governor Bill Allain in November. MSMA president-elect Dr. W. Lamar Weems, second from left, comments on the report. Also pictured are, from left, Charles Mathews, MSMA Executive Director; James Dixon of the Governor's Office; and Governor Allain.

Dr. Sidney Graves Heads State Board of Health

The Mississippi State Board of Health elected as its chairman Dr. Sidney O. Graves of Natchez.

Dr. Graves, who held the post of MSMA president in 1982-83, currently is serving as one of MSMA's delegates to the American Medical Association.

A native of Laurel, Dr. Graves attended Millsaps College and the University of Tennessee, where he received his M.D. degree in 1944. Following internship at Jefferson Davis Hospital in Houston, Texas, he completed residencies in general surgery and urology at Carraway Methodist Hospital in Birmingham and the University of Pennsylvania at Philadelphia. He has been engaged in the practice of urology in Natchez since 1952.

Dr. Graves, a member of the Southeastern Section of the American Urological Association, is a past president of the Mississippi Foundation for Medical Care, the Mississippi Urological Association and Homochitto Valley Medical Society. He has been Chief of Staff of Natchez General, Jefferson Davis, and Humana Hospitals of Natchez. He also was vice president of the Natchez Rotary Club and served two terms on the administrative board of Jefferson Street Methodist Church.

Liability Issue Replaces Cost As Physicians' Main Concern

For the first time, physicians see professional liability rather than cost as the main problem facing medicine, according to a 1986 survey by the American Medical Association. Cost continues to be the primary concern of the public, however, cited by 63%.

Over the last ten years, the AMA has conducted a series of nationwide surveys of physician and public opinion on health care issues. Data collection for the latest survey took place in May and June, 1986.

One significant finding of the survey is that the public is increasingly aware of a general liability insurance crisis. Furthermore, substantial majorities are now sympathetic with physicians on a number of specific issues related to malpractice insurance and suits.

Other major findings are:

—More American adults perceive a physician surplus than in years past, but they are still more

likely to report a shortage. Physicians indicate growing concern on several items related to physician supply and competition.

—Most physicians feel a continuing loss of control over patient treatment decisions and are very sensitive to that issue, reacting strongly against insurance plan provisions that require their decisions to be reviewed by persons other than practicing physicians.

—Physicians generally see patients as more knowledgeable, more cost-conscious and more demanding than they used to be, but there is less certainty about patients' willingness to follow prescriptions and their satisfaction with the treatment process. Still, most physicians believe their patients feel generally positive about their visits.

—There is considerable negative sentiment among the public toward doctors in general, but the image is not getting worse, as had been the case several years ago. Overall, public attitudes toward physicians are fairly stable.

—There is not a high level of awareness, especially among the public, of AMA policy initiatives, but there is widespread support among both physicians and the general public for a number of positions the Association has taken. Physicians overwhelmingly believe the AMA should continue to take strong positions on public health policies.

—A majority of American adults believe Medicare payments should be based on patient income and would be willing to pay additional taxes to ensure the program's continuation. Even larger numbers (80%) would contribute to a "Health IRA."

UMC Announces Faculty Appointments

Four have been named in School of Medicine and centerwide faculty appointments at the University of Mississippi Medical Center for the current academic session.

Dr. Norman C. Nelson, vice chancellor for health affairs and medical school dean announced the appointments following approval by the Board of Trustees of State Institutions of Higher Learning.

School of Medicine appointments included Dr. Leonard Wayne Hess and Dr. Rick Wilson Martin, assistant professors of obstetrics-gynecology, and Dr. Ronald Page Knobloch, assistant professor of surgery (urology). Dr. Jan Elizabeth Bly was named instructor in microbiology in centerwide appointments.

Dr. Hess earned the B.S. in 1973 at the Virginia Polytechnic Institute and State University and the

M.D. in 1977 at Virginia Commonwealth University Medical College of Virginia. He did his internship and residency with the U.S. Naval Hospital and a fellowship at the Walter Reed Army Medical Center and the Naval Medical Command-National Capital Region, where he was codirector of perinatal genetics from 1983-1985. Dr. Hess joined the U.S. Naval Reserve Medical Corps as an ensign in 1973, and was named Lieutenant in 1977. In 1981, he became clinical instructor in obstetrics and gynecology with the Uniformed Services University of the Health Sciences in Bethesda, Maryland, and was promoted to assistant professor of obstetrics-gynecology in 1983, a position he held until his appointment at UMC. He has been a Lieutenant Commander in the U.S. Navy Medical Corps since 1981, and chief of obstetrics and maternal-fetal medicine at the U.S. Naval Hospital in Portsmouth, Virginia, since 1985.

Dr. Martin, who earned the B.S. in 1973 at Georgia Institute of Technology, received the M.D. in 1977 from the University of Texas Medical Branch, where he did his internship and residency. A Major in the U.S. Air Force from 1981-1985, he was on the medical staff at the U.S. Air Force Hospital at Shaw Air Force Base, South Carolina, from 1981-1985, and chief of obstetrics-gynecology since 1982. He has been a fellow in maternal-fetal medicine at UMC since 1985.

Dr. Knobloch earned the B.S. in 1974 and the M.D. in 1977 at Louisiana State University. He did his internship and residencies at the University of Mississippi Medical Center, and has been in private practice in Opelousas, Louisiana, from 1982-1985, and in Andalusia, Alabama, since 1985.

Dr. Bly earned the B.S. in 1980 and the Ph.D. in 1984 at the University College of North Wales. She has been a research associate in microbiology at UMC since 1984.

Federal Register Lists State Manpower Shortage Areas

Winston County has been withdrawn from the list of Health Manpower Shortage Areas (HMSAs) as determined by criteria of the Department of Health and Human Services. HMSAs are designated or withdrawn by the Secretary of HHS under the authority of section 332 of the Public Health Service Act.

The latest list of primary care HMSAs, published in the Federal Register of September 19, includes

these Mississippi counties: DeSoto, Tate, Grenada, Yalobusha, Issaquena, Sharkey, and parts of Hinds and Jackson counties. All except the first four counties are considered to be highest-degree (01) shortage areas.

Criteria for designating HMSAs were first published in 1978. Shortages are defined according to health manpower types (primary medical care, dental, psychiatric, vision care, podiatric, pharmacy and veterinary manpower).

Public or nonprofit entities in HMSA areas are eligible to apply for assignment of National Health Service Corps (NHSC) personnel to provide health services in those areas.

Urological Society Donates To UMC Continuing Education



Mississippi Urological Society president Dr. Woodie L. Mason of Jackson presented a check for \$3000 to Dr. Norman C. Nelson, vice chancellor for health affairs at the University of Mississippi Medical Center, in support of the university's continuing education programs for urologists in the state. The UMC Division of Health Professional Education offers some 85 continuing medical education courses each year for physicians and health professionals.

Shell Donates Monitor to UMC LifeStar



Shell Western Exploration and Production, Inc. at Thomasville donated a Vita-Trac Vital Signs Monitoring System to the University of Mississippi Medical Center to be used aboard UMC LifeStar, the helicopter transport service for the University Hospital. The system provides automatic and continuous readings of a patient's blood pressure, pulse rate, respiration and temperature, freeing the medical flight team to respond to life-threatening problems and alerting them to sudden changes in vital signs. Dr. Robert C. Jorden, director of the Division of Emergency Medicine and medical director for LifeStar, with Paula French, flight nurse, from right, accept the gift for the Medical Center. Presentors are Shell employees from left, Glenn Haden, safety coordinator and Ernest Myrick, safety inspector.

POSTGRADUATE CALENDAR

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University Medical Center, Jackson

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Feb. 26-27

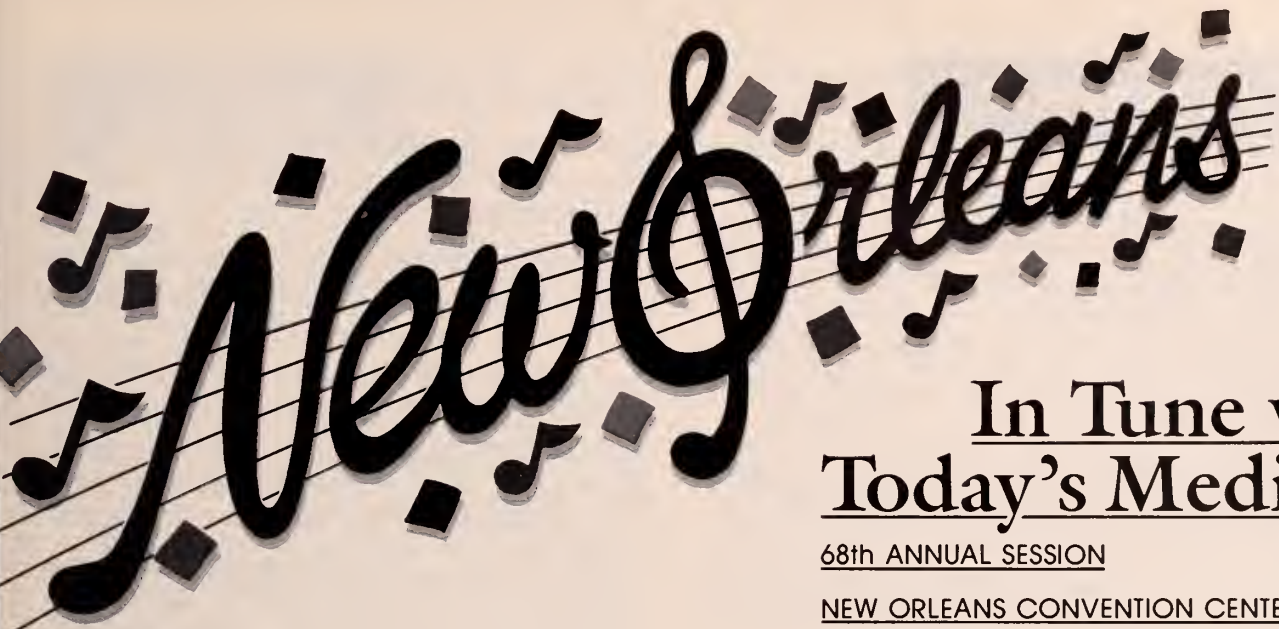
University Medical Center, Jackson

For more information or a program brochure, contact the University of Mississippi Medical Center Division of Continuing Health Professional Education, 2500 North State Street, Jackson, Mississippi 39216-4505; or call (601) 984-1300.

MEDICO-LEGAL BRIEF

(Continued from page 16)

medical staff may find that having the attorney present during discussions of the problem by medical staff committees or a meeting of the whole is not only helpful, but provides the attorney with needed information to be effective in resolving the dispute. In some situations, disputes can be resolved amicably by having the medical staff attorney with good negotiating skills discuss the situation with the hospital attorney. In those instances where the medical staff views conflict with the views of the hospital attorney or the hospital governing board on the provisions in the medical staff bylaws, separate counsel may be of assistance in resolving the conflict.



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PERSONALS

PAUL ALLEN of Pascagoula was a guest speaker at a recent meeting of the Pascagoula Business and Professional Women's Club.

JOHN RUSSELL BARNES of Vicksburg has been recertified as a diplomate of the American Board of Family Practice.

GENE BARRETT of Jackson spoke to the Southern Illinois Medical Association on "Arthroscopic Ligament Repairs in the Knee."

CLIFTON C. CARTWRIGHT of Booneville has been recertified as a diplomate of the American Board of Family Practice.

R. D. CELENTANO of Columbia has been inducted as a fellow of the American College of Surgeons.

RODERICK T. CUTRER of Hattiesburg has been recertified as a diplomate of the American Board of Family Practice.

FRANK DAVIS of Corinth recently was honored by Gov. Martha Layne Collins of Kentucky for his contributions to and support of the Tennessee-Tombigbee Waterway Development Authority.

JOHN K. DRAKE of Ocean Springs has been named chief of staff at Ocean Springs Hospital.

RICHARD J. FIELD, JR., of Centreville spoke at the banquet for the Committee on Trauma at the recent Clinical Congress of the American College of Surgeons.

HARRY C. FRYE of Magnolia was named 1986 Citizen of Distinction by the South Pike Area Chamber of Commerce.

MARTIN HERMAN of Tupelo recently closed his practice of pediatrics to engage in the practice of emergency medicine.

EDGAR W. HULL of Pascagoula has been named chief of staff at Singing River Hospital.

DON LA GRONE of Biloxi participated in the Fourth North America-Nicaragua Colloquium on Health, held in Managua, Nicaragua.

C. FOSTER LOWE of McComb has been elected chief of staff at Southwest Mississippi Regional Medical Center.

R. RAY LYLE of Starkville has relocated his office for the practice of pediatrics to 308 Hospital Road.

JOHN W. MCFADDEN of Tupelo made a presentation at the medical staff meeting of Northwest Mississippi Medical Center in Clarksdale.

JOSEPH MITCHELL of Biloxi spoke at a seminar on parenting at Memorial Hospital of Gulfport.

TOM MITCHELL of Vicksburg received a plaque from West Mississippi Medical Society in appreciation of his service to the Vicksburg medical community.

WILLIAM NICHOLAS of UMC was speaker at a diabetes workshop in Vicksburg.

GUY L. ODOM announces the opening of his office for the practice of general surgery and family practice at Berry Street in Prentiss.

DOUG PHILLIPS announces the opening of his office for the practice of family medicine at 163 Wilson Street in Monticello.

WILLIAM C. PORTER, JR. has joined the staff of the Vicksburg Clinic for the practice of orthopedic surgery.

TATE THIGPEN of Jackson presented a lecture on ovarian cancer at the Fifth Annual Cancer Symposium of Sutter Community Hospital in Sacramento, California.

DAVID THOMAS of UMC participated in the International Symposium on Clinical Research in San Antonio, Texas.

THOMAS L. VINSON of Columbus has been inducted as a fellow of the American College of Surgeons.

— Next Month in JOURNAL MSMA —

High Risk Factors for Cesarean Febrile Morbidity

Intra-Arterial Digital Angiography of Distal Tibial Vessels: Improved Preoperative Evaluation for Limb Salvage Procedures

From Consensus to Chaos: A Historical Perspective of American Attitudes towards Illness

NEW MEMBERS

ALFORD, TIMOTHY J., Kosciusko. Born Oct. 3, 1956, Leflore Co.; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and family practice residency, Columbus, GA, 1983-86; elected by North Central Medical Society.

BLOCK, WILLIAM A., Tupelo. Born Chicago, Nov. 14, 1944; M.D., University of Colorado School of Medicine, Denver, 1971; interned Medical University of South Carolina, Charleston, one year; pathology residency, University of Colorado and Naval Regional Medical Center, San Diego, CA, elected by Northeast Mississippi Medical Society.

BRIDGES, ARNOLD DAVIS, JR., Grenada. Born Mobile, AL, Aug. 28, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned Oral Roberts University Hospital, Tulsa, OK, one year; internal medicine residency, University of Oklahoma, Tulsa, 1984-86; elected by North Central Medical Society.

BRISKI, RAYMOND STANLEY, Byhalia. Born Phillipsburg, NJ, Jan. 23, 1956; M.D., Rutgers Medical School, Piscataway, NJ, 1982; interned and family practice residency, JFK Medical Center, Edison, NJ, 1982-85; elected by North Mississippi Medical Society.

CHOUTEAU, STEPHEN L., Jackson. Born Hattiesburg, MS, May 8, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned, one year, University of Mississippi School of Medicine, Jackson, elected by Central Medical Society.

EVANS, THOMAS O., Byhalia. Born Glen Ridge, NJ, April 13, 1955; M.D., Georgetown University School of Medicine, Washington, DC, 1982; interned and family practice residency, Hunterdon Medical Center, Flemington, NJ 1982-85; elected by North Mississippi Medical Society.

GRISWOLD, RICHARD D., Tupelo. Born Monroe, LA, May 19, 1952; M.D., Louisiana State University School of Medicine, New Orleans, 1978; pathology residency, same, 1978-82; elected by Northeast Mississippi Medical Society.

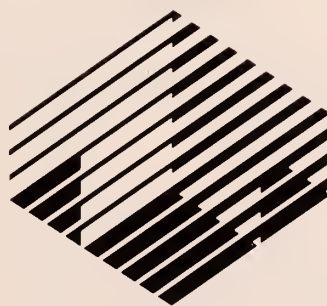
HARRIS, JOE MARK, Florence. Born Cleveland, MS, April 15, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and family practice residency, University of Mississippi

School of Medicine, Jackson, 1983-86; elected by Central Medical Society.

HIGGINS, ROBERT W., Jackson. Born Dallas, TX, Sept. 29, 1954; M.D., Medical College of Virginia Commonwealth University School of Medicine, Richmond, 1980; interned and orthopedic surgery residency, University of Mississippi School of Medicine, Jackson, MS, 1980-85; fellowship, sports medicine, Columbus, GA; elected by Central Medical Society.

MESSINA, JOSEPH S., JR., Grenada. Born Grenada, MS, June 5, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and internal medicine residency, University of Mississippi School of Medicine, Jackson, 1983-86; elected by North Central Medical Society.

MUNDINGER, GERHARD HERMAN, JR., Jackson. Born Tucson, AZ, 1949; M.D., University of Colorado School of Medicine, Denver, 1975; interned University of Colorado, six months and Johns Hopkins, Baltimore, MD, six months; surgery residency,



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NEW MEMBERS/Continued

Johns Hopkins, Baltimore, 1976-77; National Cancer Institute, 1977-79; thoracic and cardiac surgery, University of Michigan, 1984-86; elected by Central Medical Society.

SWATEK, WILLIAM C., Senatobia. Born St. Louis, MO, Jan. 10, 1920; M.D., Loma Linda University School of Medicine, Loma Linda, CA, 1949; interned, one year, Nashville General Hospital, Nashville, TN, pathology residency, Loma Linda University Medical Center, 1949-52; elected by North Central Medical Society.

TRIBBLE, ANITA L., Natchez. Born Hinds County, MS, May 19, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1976; interned and medicine residency, Georgetown Hospital, Washington, D.C., 1976-79; elected by Homochitto Valley Medical Society.

WOOLEY, JOHN R., Jackson. Born Nashville, TN, Nov. 24, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and ob-gyn residency, University of Mississippi School of Medicine, Jackson, 1982-86; elected by Central Medical Society.

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MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 21-25, 1987, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 119th Annual Session, June 3-7, 1987, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 29-August 1, 1987, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale, Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrich, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. William Billington, Secy., 731 Medical Center Dr., West Point, MS 39773. Counties: Clay, Oktibbeha, Lowndes, Noxubee.

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly Mississippi State Medical Association 735 Riverside Drive Jackson, MS 39216	Mississippi Chapter American College of Surgeons Box 5229 Jackson, MS 39216
North Mississippi Medical Center 830 Gloster Avenue Tupelo, MS 38801	North Panola County Hospital Drawer 160 Sardis, MS 38666
Forrest General Hospital Box 1897 Hattiesburg, MS 39401	Singing River Hospital P.O. Box 112 Pascagoula, MS 39567
Mississippi Baptist Hospital 1225 N. State Street Jackson, MS 39201	Magnolia Hospital Alcorn Drive Corinth, MS 38834
Gulf Coast Community Hospital 4642 W. Beach Boulevard Biloxi, MS 39531	Greenwood Leflore Hospital 1508 Leflore Avenue Greenwood, MS 38930
Jefferson Davis Memorial Hospital Box 1488 Natchez, MS 39120	Gulfport Memorial Hospital 4500 13th Street Gulfport, MS 39501
King's Daughter Hospital Box 948 Brookhaven, MS 39601	Oxford-Lafayette County Hospital P.O. Box 946 Oxford, MS 38655
Riverside Hospital Lakeland Drive Jackson, MS 39208	
Biloxi Regional Medical Center 1559 Lafayette St. Biloxi, MS 39533	
Jeff Anderson Regional Medical Center 2124 14th St. Meridian, MS 39301	
Northwest Mississippi Regional Medical Center Box 1218 Clarksdale, MS 38614	

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GENERAL INTERNIST to join Internal Medicine Clinic in Laurel, MS. Charles D. Cannon, Jr., M.D., Internist, P.O. Box 2756, Laurel, MS 39440; (601) 649-2863.

ONCOLOGIST to join Internal Medicine Clinic in Laurel, MS. John M. Wallace, M.D., P.O. Box 2756, Laurel, MS 39440; (601) 649-2863.

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POSITION AVAILABLE JULY 1, 1987! A 160 bed Medical Center with a 24-hour Emergency Department in McComb, Mississippi is looking for a full-time Board Qualified physician. Opportunity for Directorship. Excellent compensation and benefits.

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needed to replace retiring physician. Good recreation area, on the water, 65 miles East of New Orleans by Interstate. Contact Pete Johnston, Executive Director, Garden Park Community Hospital, Gulfport, MS 39501 — (601) 865-1340.

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The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

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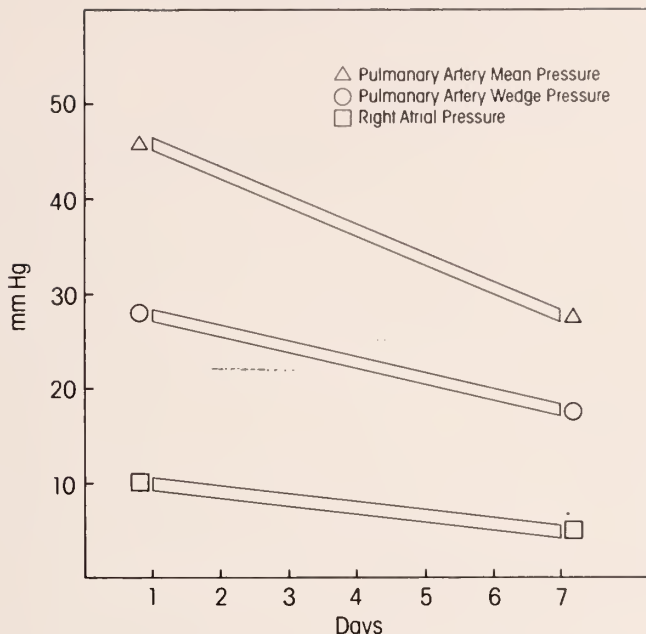
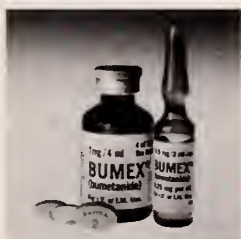
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References: 1. Olesen KH, *et al* *Postgrad Med J* 51(Suppl 6) 54-63, 1975. 2. Handler B, Dhingra RC, Rosen KM *J Clin Pharmacol* 21 706-711, Nov-Dec 1981. 3. Brater DC, *et al* *Clin Pharmacol Ther* 34 207-213, Aug 1983. 4. Brater DC, Fox WR, Chennavasin P *J Clin Pharmacol* 21 599-603, Nov-Dec 1981. 5. Davies DL, *et al* *Clin Pharmacol Ther* 15 141-155, Feb 1974.

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WARNING: Bumex (bumetanide/Roche) is a potent diuretic which, if given in excessive amounts, can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dosage schedule have to be adjusted to the individual patient's needs. (See under **DOSAGE AND ADMINISTRATION** in complete product information.)

INDICATIONS AND USAGE: Edema associated with congestive heart failure, hepatic and renal disease, including the nephrotic syndrome. Almost equal diuretic response occurs after oral and parenteral administration of Bumex. If impaired gastrointestinal absorption is suspected or oral administration is not practical, Bumex should be given by the intramuscular or intravenous route.

Successful treatment with Bumex following instances of allergic reactions to furosemide suggests a lack of cross-sensitivity.

CONTRAINDICATIONS: Anuria. Hypersensitivity and in patients in hepatic coma or in states of severe electrolyte depletion. Although Bumex can be used to induce diuresis in renal insufficiency, any marked increase in blood urea nitrogen or creatinine, or the development of oliguria during therapy at patients with progressive renal disease, is an indication for discontinuation of treatment.

WARNINGS: Dose should be adjusted to patient's needs. Excessive doses or too frequent administration can lead to profound water loss, electrolyte depletion, dehydration, reduction in blood volume and circulatory collapse with the possibility of vascular thrombosis and embolism, particularly in elderly patients.

Prevention of hypokalemia requires particular attention in patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis and ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, certain diarrheal states, or other states where hypokalemia is thought to represent particular added risks to the patients.

In patients with hepatic cirrhosis and ascites, sudden alterations of electrolyte balance may precipitate hepatic encephalopathy and coma. Treatment in such patients is best initiated in the hospital with small doses and careful monitoring of the patient's clinical status and electrolyte balance. Supplemental potassium and/or spironolactone may prevent hypokalemia and metabolic alkalosis in these patients.

In cats, dogs and guinea pigs, Bumex has been shown to produce ototoxicity. Since Bumex is about 40 to 60 times as potent as furosemide, it is anticipated that blood levels necessary to produce ototoxicity will rarely be achieved. The potential for ototoxicity increases with intravenous therapy, especially at high doses.

Patients allergic to sulfonamides may show hypersensitivity to Bumex.

PRECAUTIONS: Measure serum potassium periodically and add potassium supplements or potassium-sparing diuretics, if necessary. Periodic determinations of other electrolytes are advised in patients treated with high doses or for prolonged periods, particularly in those on low salt diets. Hyperuricemia may occur. Reversible elevations of the BUN and creatinine may occur, especially with dehydration and in patients with renal insufficiency. Bumex may increase urinary calcium excretion.

Possibility of effect on glucose metabolism exists. Periodic determinations of blood sugar should be done, particularly in patients with diabetes or suspected latent diabetes.

Patients should be observed regularly for possible occurrence of blood dyscrasias, liver damage or idiosyncratic reactions.

Especially in presence of impaired renal function, use of parenterally administered Bumex should be avoided in patients to whom aminoglycoside antibiotics are also being given, except in life-threatening conditions.

Drugs with nephrotoxic potential and bumetanide should not be administered simultaneously. Since lithium reduces renal clearance and adds a high risk of lithium toxicity, it should not be given with diuretics.

Probenecid should not be administered concurrently with Bumex.

Concurrent therapy with indomethacin not recommended.

Bumex may potentiate the effects of antihypertensive drugs, necessitating reduction in dosage.

Interaction studies in humans have shown no effect on digoxin blood levels.

Interaction studies in humans have shown Bumex to have no effect on warfarin metabolism or on plasma prothrombin activity.

Pregnancy: Bumex should be given to a pregnant woman only if the potential benefit justifies the potential risk to the fetus.

Bumetanide may be excreted in breast milk.

Pediatric Use: Safety and effectiveness below age 18 not established.

ADVERSE REACTIONS: Muscle cramps, dizziness, hypotension, headache and nausea, and encephalopathy (in patients with preexisting liver disease).

Less frequent clinical adverse reactions are weakness, impaired hearing, rash, pruritus, hives, electrocardiogram changes, abdominal pain, arthritic pain, musculoskeletal pain and vomiting. Other clinical adverse reactions are vertigo, chest pain, ear discomfort, fatigue, dehydration, sweating, hyperventilation, dry mouth, upset stomach, renal failure, asterixis, itching, nipple tenderness, diarrhea, premature ejaculation and difficulty maintaining an erection.

Laboratory abnormalities reported are hyperuricemia, azotemia, hyperglycemia, increased serum creatinine, hypochloremia, hypokalemia, hyponatremia, and variations in CO₂ content, bicarbonate, phosphorus and calcium. Although manifestations of the pharmacologic action of Bumex, these conditions may become more pronounced by intensive therapy. Diuresis induced by Bumex may also rarely be accompanied by changes in LDH, total serum bilirubin, serum proteins, SGOT, SGPT, alkaline phosphatase, cholesterol, creatinine clearance, deviations in hemoglobin, prothrombin time, hematocrit, platelet counts and differential counts increases in urinary glucose and urinary protein have also been seen.

DOSAGE AND ADMINISTRATION:

Oral Administration: The usual total daily dosage is 0.5 to 2.0 mg and in most patients is given as a single dose.

Parenteral Administration: Administer to patients (IV or IM) with GI absorption problem or who cannot take oral. The usual initial dose is 0.5 to 1 mg given over 1 to 2 minutes. If insufficient response, a second or third dose may be given at 2 to 3 hour intervals up to a maximum of 10 mg a day.

HOW SUPPLIED: Tablets: 0.5 mg (light green), 1 mg (yellow) and 2 mg (peach), bottles of 100 and 500. Prescription Paks at 30. Tel-E-Dose[®] cartons at 100. Imprint on tablets: 0.5 mg—ROCHE BUMEX 0.5, 1 mg—ROCHE BUMEX 1, 2 mg—ROCHE BUMEX 2.

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Bumex has a good safety profile; however, as with all loop diuretics, Bumex, if given in excessive amounts, can lead to profound diuresis with water and electrolyte depletion, including hypokalemia. Serum electrolytes should be monitored periodically, especially in patients on low salt diets or those treated for prolonged periods or on high doses.



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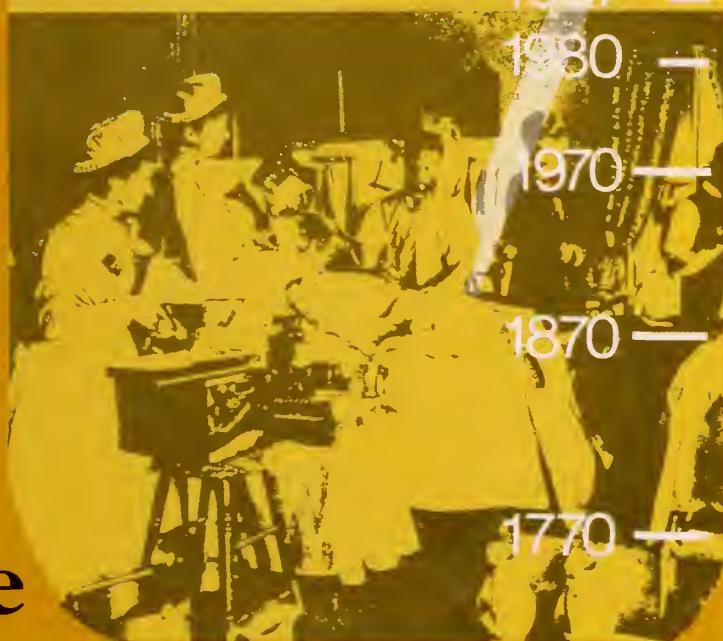
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American Attitudes Towards Illness

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Perspective



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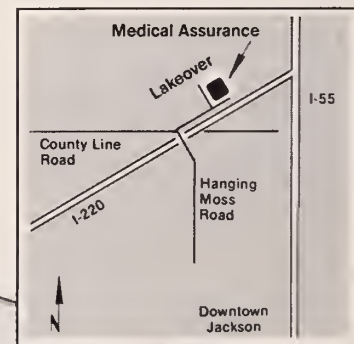
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NEWSLETTER

February 1987

Dear Doctor:

Many members have called MSMA headquarters to inquire about plans for the 119th Annual Session. To assist you in making arrangements to attend, here's a preliminary schedule of activities.

Wednesday, June 3

Hospital Medical Staff Section
President's Reception

Thursday, June 4

House of Delegates and Reference Committees
Miss. Foundation for Medical Care (MFMC)
Miss. State Board of Medical Licensure
American Medical Society of Alcohol and Other Drug Dependencies
Medical Alumni (Ole Miss, Tulane, Tennessee, and Millsaps)

Friday, June 5

Surgery Plenary Session
Miss. Chapter, American College of Surgeons
Miss. EENT Association
Miss. Ob-Gyn Society
Miss. Chapter, American College of Emergency Physicians
MSMA Past Presidents and MSMA Fifty Year Club
MSMA/MSMA Auxiliary Reception and Banquet

Saturday, June 6

Medicine Plenary Session
Miss. Academy of Family Physicians
Miss. Urology Society
Miss. Anesthesiology Society
Miss. Chapter, American Academy of Pediatrics
Medical Assurance Company of Mississippi

Sunday, June 7

House of Delegates

In the next few weeks, other functions will be scheduled. Future issues of Journal MSMA and regular editions of the "Blue Sheet" will provide details.

Sincerely,



Patsy Silver
Managing Editor

Counsel to Authors

THE JOURNAL welcomes manuscripts which should be submitted to the Editors at 735 Riverside Drive, Jackson, MS 39216, in original and at least one duplicate copy. They must be typewritten double spaced on 8½ by 11-inch white paper. **Brief manuscripts (about 2,500 words or 8 pages) will be given preference over longer articles.**

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All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list. Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

may not be made. The galley proof should be returned by the author within 48 hours from receipt, and no further changes may be made.

Illustrations consist of all material which cannot be set into type such as photographs, line drawings, graphs, charts, and tracings. Illustrations should be submitted separately from text copy. Figures and drawings should be professionally prepared with black ink on white paper. Photographs should be of high resolution, unmounted, untrimmed, glossy prints. Each must be clearly identified. No charges are made to authors for up to four illustration engravings. More are not permitted unless voted on by two editors and extra costs must be absorbed by the author.


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In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material.

A thesis summary of 75 to 100 words must accompany each manuscript.

Reprints may be obtained at cost plus shipping charges from the association and **should be ordered prior to publication.** The JOURNAL reserves the right to decline any manuscript. Authors should avoid placing subheads in the text, and the Editors reserve the prerogative of writing and inserting subheads according to JOURNAL style. — *The Editors.*

In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by all authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*

A woman with dark hair, wearing a bright orange button-down shirt and dark trousers, sits alone at a small white metal table in an outdoor cafe setting. She is looking down with a somber expression. The cafe has many similar empty tables and white metal chairs with heart-shaped backs. The background is a dark, textured wall.

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is lonely enough...
with herpes it's like
solitary confinement."**

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**Prevent genital herpes
recurrences
month after month with
daily therapy.**

(In controlled studies, recurrences were
totally prevented for 4 to 6 months in up to
75% of patients.)

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Help free your patients from recurrences.

Daily therapy

Coping with genital herpes is rarely easy. For some, the worst part is the pain and discomfort of frequent attacks — month after month, year after year. For others, the emotional burden presents a more difficult problem, leading to social isolation, anxiety, and diminished self-esteem.

Prevent or reduce recurrences

Although your patients have to live with herpes, they shouldn't have to suffer. Daily therapy with ZOVIRAX CAPSULES can help free them from the cycle of recurrent genital herpes. For many, one capsule three times a day can suppress recurrences completely while on therapy.

Generally well tolerated

Daily therapy with ZOVIRAX CAPSULES is generally well tolerated. The most frequent adverse reactions reported during clinical trials were headache, diarrhea, nausea/vomiting, vertigo, and arthralgia.

The physical and emotional difficulties posed by genital herpes are unique for each patient. The frequency and severity of recurrent episodes, as well as the emotional impact of the disease, should be considered when selecting daily therapy with ZOVIRAX CAPSULES.

*Please see brief summary of
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Brief Summary

INDICATIONS AND USAGE: Zovirax Capsules are indicated for the treatment of initial episodes and the management of recurrent episodes of genital herpes in certain patients.

The severity of disease is variable depending upon the immune status of the patient, the frequency and duration of episodes, and the degree of cutaneous or systemic involvement. These factors should determine patient management, which may include symptomatic support and counseling only, or the institution of specific therapy. The physical, emotional and psychosocial difficulties posed by herpes infections as well as the degree of debilitation, particularly in immunocompromised patients, are unique for each patient, and the physician should determine therapeutic alternatives based on his or her understanding of the individual patient's needs. Thus Zovirax Capsules are not appropriate in treating all genital herpes infections. The following guidelines may be useful in weighing the benefit/risk considerations in specific disease categories:

First Episodes (primary and nonprimary infections — commonly known as initial genital herpes):

Double-blind, placebo-controlled studies have demonstrated that orally administered Zovirax significantly reduced the duration of acute infection (detection of virus in lesions by tissue culture) and lesion healing. The duration of pain and new lesion formation was decreased in some patient groups. The promptness of initiation of therapy and/or the patient's prior exposure to Herpes simplex virus may influence the degree of benefit from therapy. Patients with mild disease may derive less benefit than those with more severe episodes. In patients with extremely severe episodes, in which prostration, central nervous system involvement, urinary retention or inability to take oral medication require hospitalization and more aggressive management, therapy may be best initiated with intravenous Zovirax.

Recurrent Episodes:

Double-blind, placebo-controlled studies in patients with frequent recurrences (6 or more episodes per year) have shown that Zovirax Capsules given for 4 to 6 months prevented or reduced the frequency and/or severity of recurrences in greater than 95% of patients. Clinical recurrences were prevented in 40 to 75% of patients. Some patients experienced increased severity of the first episode following cessation of therapy; the severity of subsequent episodes and the effect on the natural history of the disease are still under study.

The safety and efficacy of orally administered acyclovir in the suppression of frequent episodes of genital herpes have been established only for up to 6 months. Chronic suppressive therapy is most appropriate when, in the judgement of the physician, the benefits of such a regimen outweigh known or potential adverse effects. In general, Zovirax Capsules should not be used for the suppression of recurrent disease in mildly affected patients. Unanswered questions concerning the human relevance of *in vitro* mutagenicity studies and reproductive toxicity studies in animals given very high doses of acyclovir for short periods (see Carcinogenesis, Mutagenesis, Impairment of Fertility) should be borne in mind when designing long-term management for individual patients. Discussion of these issues with patients will provide them the opportunity to weigh the potential for toxicity against the severity of their disease. Thus, this regimen should be considered only for appropriate patients and only for six months until the results of ongoing studies allow a more precise evaluation of the benefit/risk assessment of prolonged therapy.

Limited studies have shown that there are certain patients for whom intermittent short-term treatment of recurrent episodes is effective. This

approach may be more appropriate than a suppressive regimen in patients with infrequent recurrences.

Immunocompromised patients with recurrent herpes infections can be treated with either intermittent or chronic suppressive therapy. Clinically significant resistance, although rare, is more likely to be seen with prolonged or repeated therapy in severely immunocompromised patients with active lesions.

CONTRAINDICATIONS: Zovirax Capsules are contraindicated for patients who develop hypersensitivity or intolerance to the components of the formulation.

WARNINGS: Zovirax Capsules are intended for oral ingestion only.

PRECAUTIONS: General: Zovirax has caused decreased spermatogenesis at high doses in some animals and mutagenesis in some acute studies at high concentrations of drug (see PRECAUTIONS — Carcinogenesis, Mutagenesis, Impairment of Fertility). The recommended dosage and length of treatment should not be exceeded (see DOSAGE AND ADMINISTRATION).

Exposure of Herpes simplex isolates to acyclovir *in vitro* can lead to the emergence of less sensitive viruses. The possibility of the appearance of less sensitive viruses in man must be borne in mind when treating patients. The relationship between the *in vitro* sensitivity of Herpes simplex virus to acyclovir and clinical response to therapy has yet to be established.

Because of the possibility that less sensitive virus may be selected in patients who are receiving acyclovir, all patients should be advised to take particular care to avoid potential transmission of virus if active lesions are present while they are on therapy. In severely immunocompromised patients, the physician should be aware that prolonged or repeated courses of acyclovir may result in selection of resistant viruses which may not fully respond to continued acyclovir therapy.

Drug Interactions: Co-administration of probenecid with intravenous acyclovir has been shown to increase the mean half-life and the area under the concentration-time curve. Urinary excretion and renal clearance were correspondingly reduced.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Acyclovir was tested in lifetime bioassays in rats and mice at single daily doses of 50, 150 and 450 mg/kg given by gavage. There was no statistically significant difference in the incidence of tumors between treated and control animals, nor did acyclovir shorten the latency of tumors. In 2 *in vitro* cell transformation assays, used to provide preliminary assessment of potential oncogenicity in advance of these more definitive life-time bioassays in rodents, conflicting results were obtained. Acyclovir was positive at the highest dose used in one system and the resulting morphologically transformed cells formed tumors when inoculated into immunosuppressed, syngeneic, weanling mice. Acyclovir was negative in another transformation system considered less sensitive.

In acute studies, there was an increase, not statistically significant, in the incidence of chromosomal damage at maximum tolerated parenteral doses of 100 mg/kg acyclovir in rats but not Chinese hamsters; higher doses of 500 and 1000 mg/kg were clastogenic in Chinese hamsters. In addition, no activity was found after 5 days dosing in a dominant lethal study in mice. In 6 of 11 microbial and mammalian cell assays, no evidence of mutagenicity was observed. At 3 loci in a Chinese hamster ovary cell line, the results were inconclusive. In 2 mammalian cell assays (human lymphocytes and L5178Y mouse lymphoma cells *in vitro*), positive responses for mutagenicity and chromosomal damage occurred, but only at concentrations at least 400 times the acyclovir plasma levels achieved in man.

Acyclovir has not been shown to impair fertility or reproduction in mice (450 mg/kg/day, p.o.) or in rats (25 mg/kg/day, s.c.). At 50 mg/kg/day s.c. in the rat, there was a statistically significant increase in post-implantation loss, but no concomitant decrease in litter size. In female rabbits treated subcutaneously with acyclovir subsequent to mating, there was a statistically significant decrease in implantation efficiency but no concomitant decrease in litter size at a dose of 50 mg/kg/day. No effect upon implantation efficiency was observed when the same dose was administered intravenously. In a rat peri- and postnatal study at 50 mg/kg/day s.c., there was a statistically significant decrease in the group mean numbers of corpora lutea, total implantation sites and live fetuses in the F₁ generation. Although not statistically significant,

there was also a dose related decrease in group mean numbers of live fetuses and implantation sites at 12.5 mg/kg/day and 25 mg/kg/day, s.c. The intravenous administration of 100 mg/kg/day, a dose known to cause obstructive nephropathy in rabbits, caused a significant increase in fetal resorptions and a corresponding decrease in litter size. However, at a maximum tolerated intravenous dose of 50 mg/kg/day in rabbits, there were no drug-related reproductive effects.

Intraperitoneal doses of 320 or 80 mg/kg/day acyclovir given to rats for 1 and 6 months, respectively, caused testicular atrophy. Testicular atrophy was persistent through the 4-week post-dose recovery phase after 320 mg/kg/day; some evidence of recovery of sperm production was evident 30 days postdose. Intravenous doses of 100 and 200 mg/kg/day acyclovir given to dogs for 31 days caused aspermatogenesis. Testicles were normal in dogs given 50 mg/kg/day, i.v. for one month.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Acyclovir was not teratogenic in the mouse (450 mg/kg/day, p.o.), rat (50 mg/kg/day, s.c.) or rabbit (50 mg/kg/day, s.c. and i.v.). There are no adequate and well-controlled studies in pregnant women. Acyclovir should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus. Although acyclovir was not teratogenic in animal studies, the drug's potential for causing chromosome breaks at high concentration should be taken into consideration in making this determination.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Zovirax is administered to a nursing woman. In nursing mothers, consideration should be given to not using acyclovir treatment or discontinuing breastfeeding.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS — Short-Term

Administration: The most frequent adverse reactions reported during clinical trials were nausea and/or vomiting in 8 of 298 patient treatments (2.7%) and headache in 2 of 298 (0.6%). Less frequent adverse reactions, each of which occurred in 1 of 298 patient treatments (0.3%), included diarrhea, dizziness, anorexia, fatigue, edema, skin rash, leg pain, inguinal adenopathy, medication taste and sore throat.

Long-Term Administration: The most frequent adverse reactions reported in studies of daily therapy for 3 to 6 months were headache in 33 of 251 patients (13.1%), diarrhea in 22 of 251 (8.8%), nausea and/or vomiting in 20 of 251 (8.0%), vertigo in 9 of 251 (3.6%), and arthralgia in 9 of 251 (3.6%). Less frequent adverse reactions, each of which occurred in less than 3% of the 251 patients (see number of patients in parentheses), included skin rash (7), insomnia (4), fatigue (7), fever (4), palpitations (1), sore throat (2), superficial thrombophlebitis (1), muscle cramps (2), paronychia (1), menstrual abnormality (4), acne (3), lymphadenopathy (2), irritability (1), accelerated hair loss (1), and depression (1).

DOSAGE AND ADMINISTRATION: Treatment of initial genital herpes: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 10 days (total 50 capsules).

Chronic suppressive therapy for recurrent disease: One 200 mg capsule 3 times daily for up to 6 months. Some patients may require more drug, up to one 200 mg capsule 5 times daily for up to 6 months.

Intermittent Therapy: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 5 days (total 25 capsules). Therapy should be initiated at the earliest sign or symptom (prodrome) of recurrence.

Patients With Acute or Chronic Renal Impairment: One 200 mg capsule every 12 hours is recommended for patients with creatinine clearance ≤ 10 ml/min/1.73 m².

HOW SUPPLIED: Zovirax Capsules (blue, opaque) containing 200 mg acyclovir and printed with "Wellcome ZOVIRAX 200". Bottles of 100 (NDC-0081-0991-55) and unit dose pack of 100 (NDC-0081-0991-56).

Store at 15°-30°C (59°-86°F) and protect from light.

*In controlled studies, recurrences were totally prevented for 4 to 6 months in up to 75% of patients.



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DATELINE

Health Care for Elderly
Major Concern in 2000

Chicago, IL - The turn of the century will herald a dramatic rise in health care needs for the nation's elderly, says a report in JAMA (Dec. 25). The percentage of the U.S. population older than 65 years will climb moderately from 11.3% to 13.1% between 1980 and 2000, but by 2030 will exceed 21%, producing an unprecedented wave of cost-containment pressures on hospitals and physicians.

April Meeting Addresses
AIDS Public Policy Issues

Chicago, IL - An AMA program set for April 20-22 in Chicago will serve as a forum for community leaders in government, education, business and labor to develop ways to deal with problems surrounding AIDS. Issues to be covered include: public health law; employment, health insurance, and disability; psychosocial implications; confidentiality; economic constraints; latest scientific information; and discrimination.

Screen for Adolescent
Substance Abuse Risk

Chicago, IL - A study in January's American Journal of Diseases of Children suggests that a simple questionnaire completed in a doctor's office can gauge substance abuse risks in adolescents. The 42-item questionnaire, which asked about various behaviors and the youths' relationship with parents, was administered to two groups of youths (from a treatment program and a private practice) and was able to discriminate between the two samples.

Community Hospitals Provide
Model for Cost Containment

Chicago, IL - An experimental payment program adopted by a group of community hospitals in Rochester, NY, resulted in cost containment as well as increased profits for the hospitals. The report describing the program in the Jan. 9 JAMA says it "merits serious consideration" by other communities. In the first five years, the increase in the community hospitals' expenses was 46% compared to 52% for other New York hospitals and 68% nationwide.

Dementia May be Earliest,
Sole AIDS Symptom

Chicago, IL - AIDS dementia may be the earliest and at times the only evidence of human immunodeficiency virus (HIV) infection, says a report in January's Archives of Neurology. The report describes 29 at-risk patients who were seen with dementia symptoms either before or in the absence of other major AIDS symptoms. Over half either survived for five to 16 months or died without exhibiting systemic manifestations of AIDS.



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A recent double-blind, placebo-controlled, crossover study in 138 hypertensive patients² revealed that INDERAL LA has a side effects profile unsurpassed by atenolol or metoprolol — which shows how well-tolerated once-daily INDERAL LA can be.

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The patients in the nationwide compliance trial were no different from yours. Generally when the antihypertensive regimen is complicated, compliance may become a problem. So, the effectiveness of INDERAL LA as once-daily monotherapy is a big plus. Of the remaining hypertensives in the program, 36% were controlled merely with the addition of a diuretic to INDERAL LA.

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*After a 30-day trial with INDERAL LA, physicians reported that 90% of the patients would remain on INDERAL LA.

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Please see next page for brief summary of prescribing information

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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. Inderal is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

INDERAL LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal, as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, Inderal also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

INDICATIONS AND USAGE. Hypertension: Inderal LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: Inderal LA is indicated for the long-term management of patients with angina pectoris.

Migraine: Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

WARNINGS. CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics and the response observed closely, or Inderal should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior

to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. General. Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenergic receptor blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncope, attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy. Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-immune: in extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—Dosage must be individualized. Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—Dosage must be individualized. The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily. **PEDIATRIC DOSAGE—** At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

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ORIGINAL PAPERS

High Risk Factors for Cesarean Febrile Morbidity

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IN THE PAST DECADE there has been a notable increase in the number of cesarean births. Likewise there has been an increased awareness of the associated problem of postoperative febrile complications. Investigators have reported rates of febrile morbidity after cesarean delivery that have ranged from 13-59%.¹⁻⁴ A review of the literature reveals many factors related to this high rate of infection. These include poor sterile technique, low socioeconomic status, race, maternal age, obesity, lack of prenatal care, prolonged labor, premature rupture of membranes, number of pelvic exams and internal fetal monitoring.^{5, 6} It has been our clinical impression that the post cesarean febrile morbidity rates at our institution have decreased during the past few years. However, the exact factors which led to this decline in morbidity have not clearly been elucidated. The present study was undertaken to identify more accurately those patients at risk for developing postoperative infectious complications, thus creating a profile of the high risk patient who might benefit from the early use of therapeutic antibiotics.

This study was undertaken to identify those patients at risk for developing post-delivery infectious complications. One hundred seventy-five patients were studied retrospectively by examining 19 high risk factors associated with infectious morbidity after cesarean birth. A 33.1% incidence of morbidity was noted. Endometritis most commonly accounted for febrile morbidity. There was no difference in 16 of the 19 confounding variables with respect to those with and without infection. A patient was significantly more likely to become infected if: 1) the duration of surgery was > 45 minutes ($p < 0.05$); 2) the patient weighed > 150 lbs. ($p < 0.005$; or 3) the membranes had been ruptured for > 12 hours before surgery ($p < 0.001$). The authors note that this study helped to create a profile of the high risk patient at their institution who might benefit from the early use of therapeutic antibiotics.

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Materials and Methods

The hospital records of 144 patients who underwent non-elective abdominal births at the University

Medical Center during a three-month period (April to June) were reviewed (Group I) and compared to 171 patients from the same months two years later (Group II). Patients receiving therapeutic antibiotics within 48 hours prior to cesarean delivery, those who received prophylactic antibiotics, patients with chorioamnionitis, and those in whom additional procedures were performed at the time of surgery (hysterectomy, appendectomy, etc.) were excluded from the study. This left 69 in group I and 106 in group II. All operations were performed in the same operating room but by different surgical and nursing teams throughout the day or night. General anesthesia was administered in virtually all cases using a rapid sequence technique. Fifty-eight factors relating to possible risk of infection were assessed and recorded in a retrospective review of each patient's chart. Nineteen of these high risk factors which seemed to be most likely associated with infectious morbidity are presented in this review (Table 1).

Patients meeting the standard definition of febrile morbidity (defined by the U.S. Joint Committee on Maternal Welfare as an oral temperature greater than 100.4° F in any two of the first ten days postpartum excluding the first 24 hours⁷) were divided into the following categories: 1) endometritis — fever, abnormal lochia, and uterine tenderness; 2) urinary tract infection — fever, dysuria and a positive urine culture; 3) wound infection — fever, cellulitis, and exudate; 4) pneumonia — fever, physical and radiologic findings of consolidation; 5) unknown source — fever occurring in absence of any of the above. Prior to computation, the patient populations were analyzed for normality by the w-statistic and were found to be homogenous. The PROPHET system using the statistical analysis program was utilized. All data were tested using chi-square analysis.

Results

The records of 315 hospital patients were reviewed and the patient profile from those included in the study are shown in Table 2. The demographic profile of patients in both groups are not significantly different. Likewise the indications for C/S were not different between the two groups. Of the 69 patients in group I, there were 30 cases of febrile morbidity for a rate of 43.5%. In contrast, 106 patients in group II had 28 cases of febrile morbidity among them for a rate of 26.4% ($p < 0.025$).

There was no significant difference in the 16 of the 19 confounding variables measured in the two groups. The three factors that positively correlated with the incidence of infection were length of sur-

TABLE 1
FACTORS STUDIED

1.	Age
2.	Race
3.	Gravidity
4.	Weight
5.	Gestational age
6.	Status of membranes
7.	Internal monitor
8.	Labor
9.	Level of surgeon
10.	Postop ward
11.	Day of week
12.	Length of surgery
13.	Uterine incision
14.	Estimated blood loss
15.	Transfusion required
16.	Pre-op hematocrit
17.	Post-op hematocrit
18.	Birth weight
19.	Hospital days

TABLE 2
PATIENT PROFILE

	Group I	Group II	Total
Number of cesarean births	144	171	315
Number excluded	75	65	140
Number included	69	106	175
Average maternal age	22.3	22.5	22.4
Average gravidity	2.3	2.5	2.4
Average weight	171.8	162.1	165.9
Average weeks gestation	39.0	37.5	38.1
Average admission Hct	34.7	35.7	35.3
Incidence of Febrile morbidity*	43.5	26.4	33.1

*($p < 0.025$)

TABLE 3
HIGH RISK FACTORS ASSOCIATED WITH
POSTOPERATIVE FEBRILE MORBIDITY

Length of Surgery	> 45 minutes	$p = < 0.05$
Weight of Patient	> 150 pounds	$p = < 0.005$
Rupture of Membranes	> 12 hours	$p = < 0.001$

gery, weight of patient, and status of membranes (Table 3). All patients were significantly more likely to become infected if the duration of surgery was > 45 minutes ($p < 0.05$), if the patient weighed more than 150 lbs. ($p < 0.005$), or if the membranes

had been ruptured for longer than 12 hours before surgery ($p < 0.001$). There was no difference, however, between the two groups when these three factors were analyzed.

Discussion

The incidence of cesarean birth has steadily increased over the past two decades. A seven-fold increase in the rate of puerperal endometritis has been found in patients who were delivered by cesarean birth compared with the rate in those delivered vaginally.⁸ Indeed cesarean delivery appears to be the greatest predisposing factor relating to overall postpartum morbidity. Membrane rupture prior to C/S would be expected to increase infectious morbidity and several studies have confirmed this finding.^{3, 5, 8} D'Angelo evaluated the effect of duration of labor, duration of membrane rupture, number of vaginal exams and duration of internal monitoring on postpartum morbidity. He concluded that the duration of labor alone was the primary determinant of postpartum morbidity and other time related factors are influenced by this fact.⁹ Others, in contrast, have noted that only membrane rupture was related to the development of febrile morbidity and found no association with general anesthesia, obesity, anemia, or the presence of labor.¹⁰ Gibbs has also reported the association with membrane rupture but with a lower rate of infection.² Our data supports the concept that the incidence of postoperative infection increases when the duration of membrane rupture exceeds 12 hours, but no corresponding association with duration of labor was found.

Internal uterine monitoring is obviously associated with some degree of bacterial contamination of the uterine cavity. Gassner and Ledger reported a 40% of incidence of postoperative infection in patients undergoing cesarean birth with prior internal fetal monitor as compared to 20% in the unmonitored group.¹¹ Other investigators have concluded that internal monitoring is not associated with increased morbidity if labor and ruptured membranes are not prolonged.¹² The use of an internal catheter did not predispose to a higher rate of infection in our study.

Green has identified a high rate of postoperative infection if two or more of the following factors are associated with cesarean birth: general anesthesia, obesity, anemia (Hct $< 30\%$), or prior labor.¹³ Sixty-three percent of patients with two or more factors developed febrile morbidity whereas only 25% of the remainder did so. Our data did not confirm prior labor or anemia as significant factors relating to

increased febrile morbidity although weight was a factor of significance in our study as well as in the studies reported by Green.¹⁻¹³ Obesity may also be a marker for other factors such as difficulty of the procedure and possible metabolic derangements. It is also correlated with length of surgery which was prolonged in obese patients.

In summary, this study reveals that a significant decrease in infectious morbidity occurred after operative delivery over a two year period, although no difference in the 19 high risk factors between the two groups was noted. In this retrospective review, however, three factors, weight > 150 lb, length of surgery > 45 minutes, and rupture of the membranes > 12 hours, were found to be associated with a high risk of infection in all patients. These patients may benefit from early use of therapeutic antibiotics. ★★★

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Acknowledgement

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Intra-Arterial Digital Angiography of Distal Tibial Vessels: Improved Preoperative Evaluation for Limb Salvage Procedures

JAMES U. MORANO, M.D. and JAMES L. BURKHALTER, M.D.

Jackson, Mississippi

THE ASSESSMENT OF PATIENTS with severe lower extremity peripheral vascular disease generally includes angiography. Not infrequently, however, conventional arteriography fails to visualize the distal vasculature below the knees. Whereas this may occasionally represent occlusion of these vessels, one must also consider that the failure of visualization of the distal tibial arteries may be secondary to technical problems related to conventional arteriography. In these instances intra-arterial digital subtraction angiography will frequently provide visualization of the distal vasculature where conventional arteriography has failed (see Figure 1). This additional information may prove valuable in the surgical decision to attempt a limb salvage bypass procedure versus an amputation.

Methods

Standard lower extremity arteriography is performed at our institution by placement of the tip of a 5 French pigtail-shape catheter in the lower abdominal aorta, just above the bifurcation. A hand injected test dose of contrast material is then administered through the catheter with fluoroscopic monitoring over the knees. The amount of time required for the appearance of contrast at the level of the knees is used to help establish a proper timing sequence for serial filming. The actual arteriogram is then performed by power injection of Hypaque-60 at 8 to 12 ml/sec for a total of 80 to 90 ml, depending on severity of disease and individual angiographer preference.

The standard arteriogram films are then reviewed.

From the Departments of Radiology, University Medical Center (Dr. Morano) and Mississippi Baptist Medical Center (Dr. Burkhalter), Jackson, MS.

Standard arteriography will occasionally fail to demonstrate patent distal tibial arteries. The increased contrast sensitivity of intra-arterial digital angiography, however, will frequently allow good visualization of these vessels, thus confirming their patency. This permits more accurate preoperative evaluation of patients who are being considered for amputation versus a limb salvage bypass procedure.

If the distal tibial arteries are not visualized, a decision is made as to whether to repeat the standard arteriographic filming or perform an intra-arterial digital angiogram. Occasionally it is obvious from reviewing the various films that the film timing sequence was not adequate for visualization of the distal vasculature. In these patients the filming program is modified appropriately, and a repeat standard arteriogram is performed.

In some patients, however, an obvious timing error to explain the non-visualization of the distal tibial arteries is not found. In these patients we perform an intra-arterial digital subtraction arteriogram if the more proximal vasculature has already been satisfactorily demonstrated. The intra-arterial digital angiogram is performed through the same catheter that was used in the standard arteriogram, and the catheter position is unchanged. Although there may be a theoretical advantage to exchanging for a more distally positioned selective catheter, we have not found this to be necessary. Hypaque-60 is injected intraarterially at 5 to 8 ml/sec for a total of 15 to 20 ml. The use of reactive hyperemia with

this technique has been advocated by some, but we have not found this to be needed in most of our cases.^{1, 2}

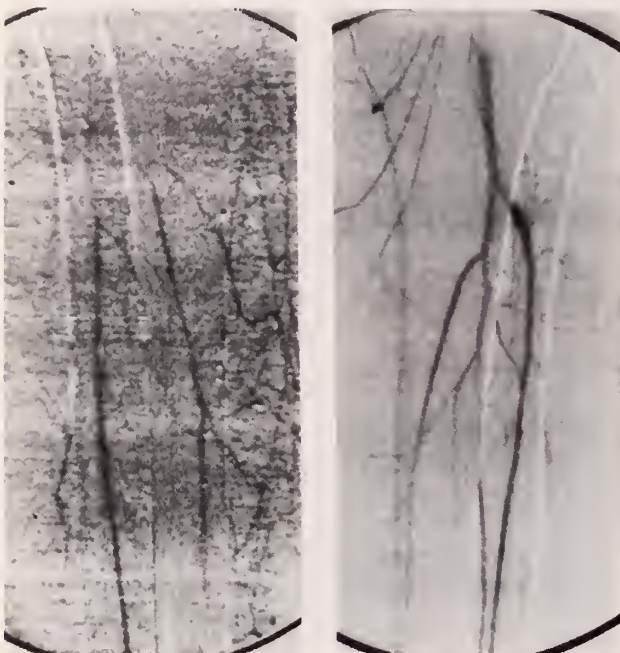


Figure 1: Intra-arterial digital angiogram of both proximal calves. Standard arteriogram failed to visualize vessels below knees bilaterally. (Left), Popliteal artery occluded, but opacification of anterior tibial artery and proximal posterior tibial artery. (Right), Patent distal popliteal artery and three vessel run-off into calf.



Figure 2A: Standard arteriogram, both calves, demonstrates no major vessels despite what was felt to represent adequate timing of the exposure.

Discussion

Patients with a severely ischemic lower extremity may be considered for either an amputation or a reconstructive vascular procedure for limb salvage. With current surgical techniques, bypass grafts to even the small vessels of the calf are being performed with increased frequency and success. Accurate preoperative evaluation of the extent and distribution of occlusive disease in these distal tibial vessels is therefore very important, just as it is in the larger, more proximal arteries.



Figure 2B: Intra-arterial digital angiogram of left proximal calf reveals patent distal popliteal artery occluded at trifurcation. Flow from collateral vessels demonstrates small patent anterior tibial and peroneal arteries.



Figure 3: (Left), Standard arteriogram demonstrates distal tibial arteries poorly; (Middle), Intra-arterial digital angiogram shows occlusive changes at the distal popliteal artery. Good opacification of patent anterior tibial and posterior tibial arteries; (Right), Intraoperative arteriogram demonstrating bypass graft.

Standard arteriography remains the primary means for evaluating the severity and location of atherosclerotic disease in the lower extremities. Surgical experience reveals, however, that the inability to visualize the distal tibial arteries with standard arteriograms does not necessarily mean that they are occluded. Non-visualization of the distal tibial arteries may be secondary to the technical aspects of arteriography. Poor timing of the filming sequence with the contrast is an obvious cause for non-visualization of the distal vessels. However, a more subtle cause of the inability to demonstrate distal tibial arteries is the presence of severe stenotic and occlusive lesions located more proximally in the pelvis or leg.^{3, 4} This may result in very faint contrast density in the calf vessels related to the poor inflow. The contrast density in patent distal tibial arteries may be so poor as to be radiographically inapparent on the standard arteriogram (see Figure 2A and 2B).

Even attempts to improve inflow, such as with post-ischemic reactive hyperemia, may be unsuccessful in providing adequate opacification of these vessels.^{1, 2} Occasionally the patent but inapparent calf vessels are superimposed on the dense cortical bone of the tibia and fibula.

Intra-arterial digital subtraction angiography can demonstrate patent distal tibial arteries which cannot be visualized with standard arteriograms (see Figure 3).¹ Even vessels that are not visualized with post-ischemic reactive hyperemia on standard arteriograms may be seen on intra-arterial digital angiograms.¹ The digital subtraction examination also has the advantages of requiring a lower contrast volume and being less painful for the patient.⁵ If there is less discomfort with the contrast injection, the patient is less likely to move his legs and produce motion artifacts.

In summary, intra-arterial digital angiography can

ANGIOGRAPHY/Continued

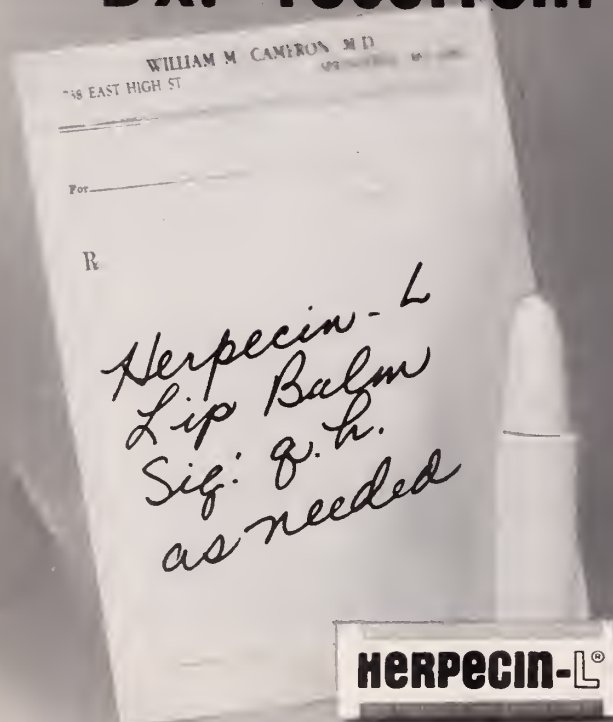
be used as a supplement to standard arteriography in the evaluation of lower extremity ischemia. The digital examination is able to demonstrate patency of the distal tibial vessels in some instances where standard arteriography fails. With the increasing success of small vessel bypass grafts below the level of the knees, the value of more accurate preoperative evaluation with this newer radiologic technique is apparent. ★★★

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Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

*** WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other antihypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 100 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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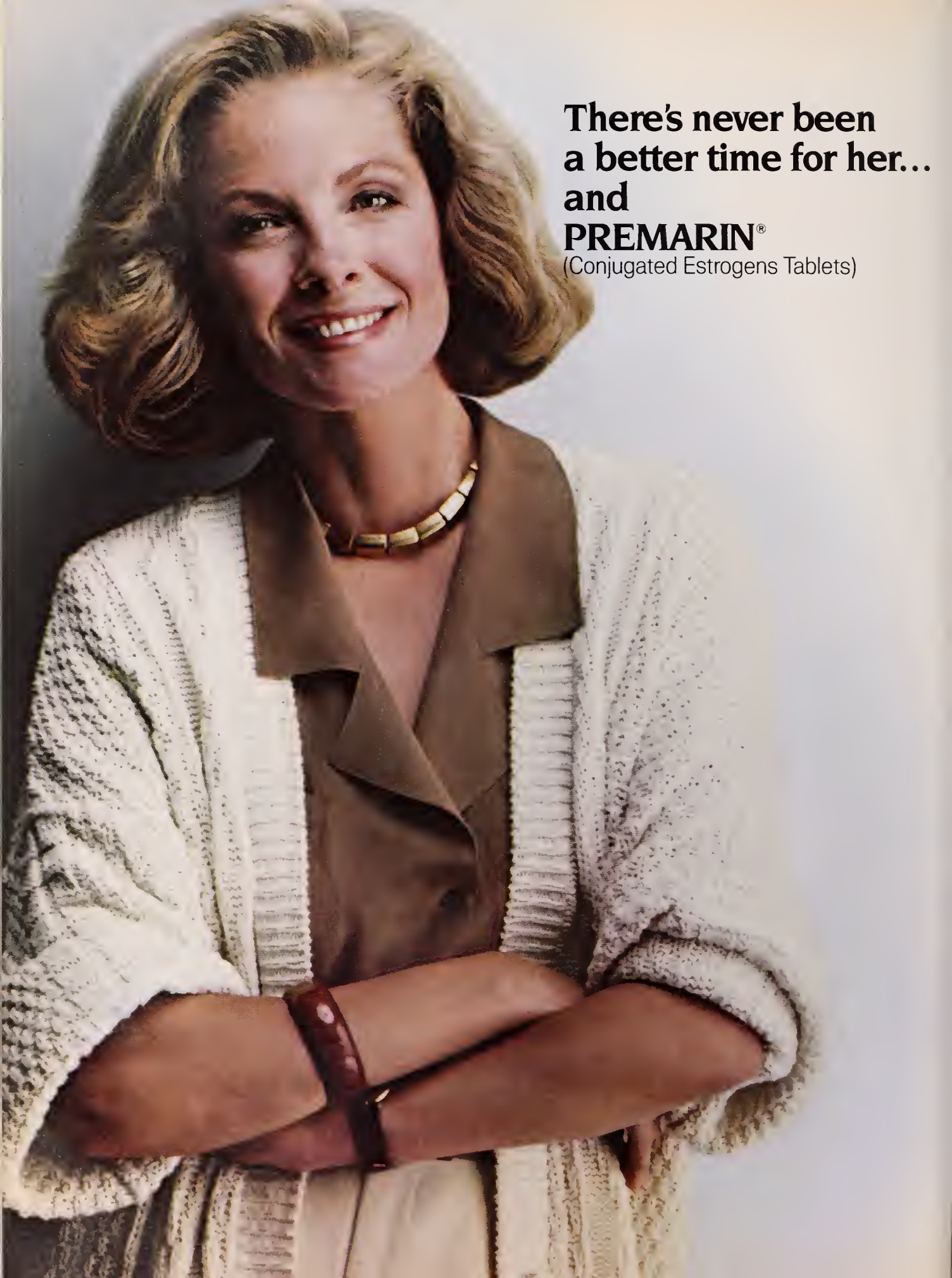
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**There's never been
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(Conjugated Estrogens Tablets)

Now the evidence looks better than ever

Significantly reduced risk of endometrial hyperplasia

Endometrial hyperplasia was significantly reduced when progestin was added to PREMARIN therapy for more than ten days a month.¹⁻⁴ The risk of endometrial hyperplasia may also be reduced through cyclic administration of unopposed, low-dose PREMARIN.

Effect on lipids—an important feature

PREMARIN used alone does not adversely affect lipid levels. In fact, a clinical study has shown a significant increase in HDL cholesterol—from 49.7 mg/dL to 56.4 mg/dL—and decrease in LDL cholesterol—from 165.1 mg/dL to 138.1 mg/dL—after one year of therapy with PREMARIN, 0.625 mg.⁵

Low-dose control of menopausal symptoms*

PREMARIN effectively relieves vasomotor symptoms, such as hot flashes. When estrogen deficiency is limited to atrophic vaginitis, PREMARIN® (conjugated estrogens) Vaginal Cream restores the vaginal environment to its premenopausal state.

The most widely used, most extensively studied estrogen worldwide.

PREMARIN®
(Conjugated Estrogens Tablets)

Most trusted for more reasons

*PREMARIN is indicated for moderate-to-severe vasomotor symptoms.

Please see following page for brief summary of prescribing information.

For moderate-to-severe
vasomotor symptoms

PREMARIN® (Conjugated Estrogens Tablets)



0.3 mg 0.625 mg 0.9 mg 1.25 mg 2.5 mg

The appearance of these tablets is a trademark of Ayerst Laboratories.

For atrophic vaginitis

PREMARIN® (Conjugated Estrogens)

Vaginal
Cream

0.625mg/g



BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS.)

PREMARIN® Brand of conjugated estrogens tablets, USP
PREMARIN® Brand of conjugated estrogens Vaginal Cream in a nonaqueous base

1 ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA

Three independent case control studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case control studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semiannual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration; it therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equiestrogenic doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY.
The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a non-steroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb reduction defects. One case control study estimated a 4-7 fold increased risk of limb reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mare's urine. It contains estrone, equin, and 17 α -dihydroequin, together with smaller amounts of 17 α -estradiol, equin, and 17 α -dihydroequin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe vasomotor symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) Osteoporosis (abnormally low bone mass). Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae. PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens (See PRECAUTIONS). The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (See Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Long-term continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. There are now reports that estrogens increase the risk of carcinoma of the endometrium in humans (See Boxed Warning). At the present time there is no satisfactory evidence that estrogens given to postmenopausal women increase the risk of cancer of the breast, although a recent study has raised this possibility. There is a need for caution in prescribing estrogens for women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease, or abnormal mammograms. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement, it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with

caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Preexisting uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

- Increased sulfobromophthalen retention
- Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3; increased norepinephrine-induced platelet aggregability
- Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG; free T4 concentration is unaltered
- Impaired glucose tolerance
- Decreased pregnandiol excretion
- Reduced response to methylparathion test
- Reduced serum folate concentration
- Increased serum triglyceride and phospholipid concentration. As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome, amenorrhea during and after treatment, increase in size of uterine fibromyomata; vaginal candidiasis, change in cervical erosion and in degree of cervical secretion, cystitis-like syndrome, tenderness, enlargement, secretion (of breasts); nausea, vomiting, abdominal cramps, bloating, cholestatic jaundice, chloasma or melasma which may persist when drug is discontinued, erythema multiforme, erythema nodosum, hemorrhagic eruption, loss of scalp hair, hirsutism, steepening of corneal curvature, intolerance to contact lenses, headache, migraine, dizziness, mental depression, chorea, increase or decrease in weight, reduced carbohydrate tolerance, aggravation of porphyria, edema, changes in libido.

ACUTE OVERDOSSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. Given cyclically for short-term use only. For treatment of moderate to severe vasomotor symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. Given cyclically. Female castration. Osteoporosis. Female castration—1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off).

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three-to-six month intervals.

Usual dosage range 2 to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

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From Consensus to Chaos: A Historical Perspective of American Attitudes Toward Illness

LUCIE R. BRIDGFORTH, PH.D.

Senatobia, Mississippi

A HUNDRED YEARS AGO when a young woman took to her bed, frail, weak, wasting away, she was diagnosed and treated by a medical profession which relied more heavily on social ideology than scientific information. Since femininity itself was viewed as a pathological condition characterized by mysterious symptoms, the wan, sickly female was merely the victim of her gender. Her chronically debilitated condition was explained, treated and accepted as a cultural phenomenon.

A century later the ideal that "to much brainwork, too little housework" might jeopardize a woman's health seems quaint if not ludicrous. But we are fooling ourselves if we think that sterilized, anesthetized, computerized medicine has removed health care from the social milieu in which it functions. Cultural factors continue to exert a powerful influence on the attitudes, theories, and practices which constitute medicine today. Thus it becomes important for those involved in health care occasionally to step back from their immediate concerns in order to analyze the relationship between science and sociology. We need to understand the nature and source of our values and the manner in which those values effect professional behavior and judgment. To do this we must first examine the interaction between culture and health in times past and the process by which the present system evolved.

"... we are fooling ourselves if we think that sterilized, anesthetized, computerized medicine has removed health care from the social milieu in which it functions. Cultural factors continue to exert a powerful influence on the attitudes, theories, and practices which constitute medicine today."

When European adventurers came to the New World to seek their fortunes in the sixteenth and seventeenth centuries, they brought with them their worldly belongings and the cultural heritage of western civilization. Since the great majority of those who settled the region claimed by England came from the British Isles, the American colonies were, from the beginning, homogenous both ethnically and ethically. Values and social norms were shared by the community as a whole, and, in many cases, enforced by the civil authorities so rigidly that any transgression of the moral code constituted a violation punishable by civil law. Families were large. And the central unit of production and consumption, the home, with its emphasis on personal relationships, was also the focus of life's great events: birth and death. Most health care, like most of everything else, was homemade, delivered by unskilled but caring hands that provided more succor than science.

The American colonists lived in a pre-industrial society. Life was short and difficult. All too well

Ms. Bridgforth is an instructor in the history department of Northwest Mississippi Junior College. Her major area of research has been the history of medicine.

aware of their own inability to alter the circumstances of their lives, they maintained a kind of stoic resignation in the face of the natural forces which seemed to be arrayed against them. Sickness and pain were an integral and ever-present, though hardly welcome, part of life, with death a ubiquitous possibility.

Though the American colonies seemed open and free in comparison with contemporary Europe, this was in many respects an elitist society which readily deferred to higher authority. Inexplicable phenomena, either in history or in nature, were perceived as part of God's all-powerful inscrutability to be accepted without question. The medical profession, like the political system, was dominated by elite leaders such as Benjamin Rush, whose theories and practices were widely accepted despite the fact that his "heroic" medicine, which relied on bleeding and purging, oftentimes did more harm than good.

The cultural homogeneity of the colonists, their ignorance of science, their defenselessness against nature's onslaught, and their willingness to accept authority determined the contours of health care in Colonial America. The nature of the society shaped the nature of medical practice. Then came the American Revolution. This is, of course, primarily notable as a political demarcation, but its broader implications permeated every facet of life.

"Sickness and death were no longer an inevitable and natural part of man's imperfect fate to be accepted as the dictates of a higher authority, but instead unnatural aberrations in an otherwise harmoniously functioning machine."

The Revolution was an integral part of the eighteenth century Enlightenment, which sought to replace the superstitions and traditions of the old order with rational thought and empirically verifiable explanations. Intellectuals of the period loudly asserted the ability of the individual to control the whims of nature as well as the affairs of men. In America this movement left in its wake not only a new nation but also a new pluralism, an acceptance of diversity which, as it gradually expanded into political and social democracy, undermined the earlier unity of morals and values. The generation which emerged from these developments at the dawn of the nineteenth century was the first to reflect a uniquely American character. Unlike their forebears, these people were arrogant, individualistic,

egalitarian, impatient, hostile towards any authority, bent on conquering any challenge that confronted them, imbued with the idea of self-help.

The parallels between these traits and health care delivery during this time are remarkable. The emphasis on equality raised suspicions that educated physicians were conspirators bent on establishing an elitist monopoly and generated political opposition so powerful that by the eve of the Civil War virtually every state in the Union had eliminated all standards for medical practice. No formal education was required, nor testing, nor regulations, nor licensing. This free and open society in the Age of the Common Man guaranteed every man the right to do as he pleased in health matters just as he did in political affairs and denied the state any role in interfering with the American privilege of being poisoned in one's own chosen way.

Closely tied to the politics and ideology of the Enlightenment was another kind of revolution which began to assert itself shortly after the American War for Independence. The young republic was in the right place at the right time to take full advantage of the rapid advances which were being made in science, both pure and applied. The political system encouraged innovation and change. The seemingly limitless land and resources provided ample opportunity for this people of plenty to expand their horizons with no concept of limits. The result was a rapid growth in productivity and prosperity which, by the dawn of the twentieth century, had transformed the very core of American society, thrusting this once small pastoral wilderness into the forefront of the developed world.

Americans, including physicians, soon became enamoured of their own success, assured that there was no end to the benefits of technology, no shadow on the road they followed in their blind rush towards the future. With new confidence in their own ingenuity, doctors and the public they treated became aware of the potential for overcoming the terrors of nature by interrupting established patterns of disease. In rapid succession the age-old enemies succumbed; yellow fever, tuberculosis, typhoid. Sickness and death were no longer an inevitable and natural part of man's imperfect fate to be accepted as the dictates of a higher authority, but instead unnatural aberrations in an otherwise harmoniously functioning machine.

But progress is an illusion. While few would question the benefits of the changes wrought by the industrial and scientific revolutions, all revolutions exact a price. City lights were accompanied by tenement filth and violence. Industries that raised the standard of living also raised the level of pollution

in the air and water. The community-oriented tightly knit family unit gradually began to erode as economic demands pulled families apart rather than pushing them together. Industrialized America came to view people as replaceable cogs in a machine. Scientific medicine came to view patients as broken machines that could be fixed by treating identifiable causative physical factors at the expense of the whole person.

Other developments contributed to a creeping impersonalization in health care. An expanding body of scientific knowledge reversed the democratic trend of medicine as once again, with the support of state law, medicine became an exclusive profession. This new professionalism widened the gap between doctor and patient. It also gave rise to increasing specialization not only among physicians but also among other medical personnel, and thus further fragmented the one-on-one nature of less sophisticated medicine. In Colonial America mothers and ministers had provided health care for family and neighbors. In the twentieth century this task was taken over by an army of uniformed, faceless technicians. This army required an ever more sophisticated battery of special equipment in an institutionalized setting to carry out its missions. Thus hospitals, which in earlier times had been used only to isolate the indigent, became treatment centers. As a result sickness and death were removed from the nurturing home environment of which they had always been a part and placed under the stewardship of antiseptic walls and stainless steel.

Not surprisingly, new attitudes accompanied these systemic changes in health care. The same patterns of thought which gave rise to the freedom on which the nation's political structure was predicated, that gave rise to the industrial revolution on which the economy was built, that gave rise to the scientific revolution that opened the doors to modern medicine also undermined the comforting belief in a divinely ordained, purposeful universe. Biological theories questioned the role of God in creation. Physical theories questioned the nature of time and space. And uncertainly seeped from the tangible world to the realm of morals and ethics. If time and space were relative, so were good and bad. If even light was fragmented, how could social values be whole.

The mushroom cloud that marked the end of World War II brought these questions into startling focus. Three decades of war had shattered what little was left of the traditional moral consensus of the western world and left behind disillusionment, individualism run wild, existentialism, and the terrifying awareness of where science, unchecked by respon-

"The individual patient . . . has come to believe that his American citizenship guarantees him the inalienable right to good health. Yet many claim this right without the concomitant acceptance of responsibility. . . . We expect the mechanic to fix the car, the doctor to fix the body."

sible decision-making, could lead. The elusiveness of progress became painfully evident. New medical dilemmas, unheard of a century earlier, confronted a world rendered incapable of dealing with them by the same forces which brought them into being. A half century of medical advances had established control over the devastating diseases of childhood, and effective government action in the area of public health had doubled man's allotted time on earth. Yet these positive developments left in their wake a host of new plagues. And amazing technological possibilities blurred the once clear lines between life and death, placing awesome new responsibilities on those charged with overseeing the nation's health.

Today our admirable attempts to improve the health of the people have left us the victims of our own success. Infatuated with the myth of conquest, we tend to shy away from those diseases and disorders which represent helplessness and failure. Our fragmented society offers no clear set of moral guidelines. Health professionals have been taught to repair the broken machine, not the broken spirit, to provide a cure, not care. The individual patient, a willing participant in shaping the contours of modern American medicine, has come to believe that his American citizenship guarantees him the inalienable right to good health. Yet many claim this right without the concomitant acceptance of responsibility. The general public has accepted an inflated and unrealistic image of the physician, which has been encouraged by the rise of media-made medicine. Whether on a weekly series or the nightly news report, heroic doctors attacking bizarre disorders make for a better theater than long-term rehabilitative care. Consequently, in real life when something goes wrong the patient blames the doctor, oftentimes with demands for compensation. We expect the mechanic to fix the car, the doctor to fix the body. We want answers, success, conquest, freedom from pain, the good life.

So where does that leave us? The nation's most prevalent health problems — cancer, heart disease, stroke, kidney disease, arthritis — are those which are least amenable to the quick fix we so impatiently

demand. Yet we who so readily develop technological solutions seem incapable of providing social solutions. No one would suggest reverting to the past; in fact, nothing can make one glad to live in the present quite so quickly as a glance at medicine and health care in the past. But this is not to say that the past is meaningless. Quite the contrary. There are elements in the social and philosophical context within which illness was faced in times past which we would do well to consider.

In the first place it is important to recognize that the present system of health care delivery is neither preordained nor permanent. It is the product of an evolutionary process in which a number of factors, many of them seemingly beyond the pale of medical science, have converged. The dialectic continues, with or without our intervention. It is imperative, then, that we take action, to discard those practices which are harmful or outmoded, but to retain those which make a positive contribution to human health. We can synthesize the best of both worlds, old and new.

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In addition, professional medicine in this century has demonstrated a shift from health care to body repair. And yet there can be no questions that the most effective application of modern science has come not from exciting, exotic, expensive technical procedures but from simple preventive measures. The great increase in life expectancy and general well-being for the masses of people in the western world can be attributed to such mundane measures as screens on the windows, clean water, nutrition, sewage disposal, and pre-school vaccinations. We as a nation, with the medical profession leading the way, must reorder our national priorities with a greater focus on preventive medicine and health maintenance. Trite as it may sound, the best prescription is prevention.

Third, we need to rethink the decision-making process that prevails in health care today. In the pre-scientific world sick people had little control over the health hazards which confronted them but a great

"... we all know that even today medical treatment is by its very nature tentative and experimental, not exact. Therefore health workers must acknowledge, as did the doctors of old, the fact that we have mortal limits, all the while recognizing that those limits are not an indictment of personal inadequacy."

deal of control over the manner in which they dealt with those hazards. Today the reverse is true. Many procedures are available only in an impersonal, institutionalized setting. Medicine and machines are often applied just because they are there, without sufficient questioning. By default and by design medical professionals, under the scrutiny of judges and patient review boards, have become the chief arbiters of the course of treatment. All too often missing is the involvement of the one person with an overriding interest in the matter, the one whose values and desires should be the primary consideration, the one whose understanding of the situation should be the first order of business. Whose life is it, anyway?

Finally, medical professionals must review their own position. It is only in this century that physicians have approached their patients with any assurance that they would do more good than harm. Yet surely we all know that even today medical treatment is by its very nature tentative and experimental, not exact. Therefore health workers must acknowledge, as did the doctors of old, the fact that we have mortal limits, all the while recognizing that those limits are not an indictment of personal inadequacy but simply a reminder of man's place in this vast and complex universe.

It is not likely that we will ever again achieve the kind of harmonic consensus that once gave America its quiet acceptance of illness and death, and perhaps its just as well. The world today is far too complex for so simplistic and passive an approach. But we can and must devise more effective ways of dealing with illness, not from a technical point of view, though innovation is always welcome, but from a human perspective. After all, it is not the technology that has failed us. It is the cultural context within which that technology has developed that has led us into chaos. Individually and collectively we must join in the difficult but necessary task of reshaping that culture to approach illness with more personal, human, comforting, yet realistic care for our fellow human beings. ★★

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The President Speaking

The Birth of an HMO

W. JOSEPH BURNETT, M.D.
Oxford, Mississippi

In May of 1984 one of my very first requests as Chairman of the Board was to appoint a special committee chaired by MSMA president Dr. Ellis M. Moffitt of Jackson to investigate the role the association should assume with respect to development of alternate health care delivery systems. This followed a recommendation to the House of Delegates at the 1984 Annual Session by then president, Dr. Whitman B. Johnson of Clarksdale.

As with numerous infringements on traditional health care, ie, government insurance programs, utilization review, etc., there existed an obvious opposition among many of our members to alternate delivery systems — IPA, PPO, HMO were spoken of with disgust and bitterness by many of our members. Undoubtedly the whole idea remains offensive to many.

The investigation by the MSMA board and staff revealed that alternate systems were seen on the horizon for Mississippi. Around us on all sides from Texas to Georgia, different systems were being organized. Reports ranging from horror stories to varying degrees of successes were received.

In September 1985 a special seminar on Alternative Delivery Systems was conducted for the membership, and plans for an MSMA-sponsored HMO/IPA were presented.

In October 1985 a meeting of the Board of Trustees was called to organize the HMO/IPA. Proper legal work was developed, and an initial offering of stock for capitalization was issued in December 1985. In January 1986 a special session of the House of Delegates was called to receive information about formation of a statewide HMO/IPA. Later in February, 1986, in the words of then president, Dr. Ralph L. Brock of McComb, "we hit a home run" as the initial stock offering met its goal of a minimum of 700 participants. We had over 800!

Subsequently, the boards of both the HMO and IPA interviewed several management firms and selected PHP — in May of 1986.

After PHP of Ohio was selected a smaller, more manageable board was organized to develop a plan and institute an alternate delivery system for Mississippi. This board must remain responsive to the membership and responsible for carrying forward the

(Continued on page 55)

EDITORIALS

JOURNAL OF THE
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State Bird: The Albatross

Support?

If there were a state charity hospital in my hometown I would push vigorously to support it (surely we need all the industry we can get!!). Such went the voting at the recent meeting of the South Mississippi Medical Society, to support the state charity Hospital at Laurel. (A large part of those voting were from Laurel.) Thirty miles away the opinion is quite different . . . and that is by those who refer to that hospital, not by urologists, ENT's, neurosurgeons, and others who do not know what goes on there much less refer to it.

Care?

If you will check into these institutions you will find that the care is often not what it should be. The buildings would require a great expenditure of money to update and maintain, and the area served is small considering the statewide support for them. A recent check at our (Laurel) state hospital showed that only one physician was licensed to practice medicine by the State Board of Medical Licensure. The others had their licenses waived in order for them to practice there. I believe that our *Patients* deserve better and I feel that as taxpayers *we* deserve better. I think that just as the state charity hospital in Jackson served its purpose, became antiquated, and was dismantled that we should firmly support the legislature in letting these institutions quietly expire and remove the albatross from around all our necks.

Action?

Those benefitted by the charity hospital system lie in a narrow band across the center of our state,

yet year after year they somehow muster sufficient vote to keep these hospitals hanging on. I think that we, as responsible physicians and taxpayers, should make a concerted effort to see that the money that is presently being used to support these hospitals be used to support the indigent care all over our state. Our local hospitals have written off indigent care almost to the breaking point already. Now is the time for us to let our legislators know how we feel. In the event that this albatross is not removed this year by the legislature, I would like to see a real *honest* vote at the next MSMA House of Delegates.

Thank God I am a physician.

JOE JOHNSTON, M.D.
Associate Editor

COMMENT

Patient Sees Need to Recapture Human Factor

Mississippi doctors are concerned with doctor-patient relationships, which seem to be at an all-time low in medical history; and as a patient, I am also much concerned with these same relationships. Physicians desire to reduce malpractice suits, while patients desire to obtain good services at affordable costs. Some of the experiences which I and my acquaintances have had bear on these problems.

I am a retired psychologist from the Gulfport VA Hospital, carrying Medicare A and B, and Blue Cross and Blue Shield Standard Option Government-Wide Service Benefit Plan. With old age comes an increased clustering of medical problems at unpredictable times. During the past year, the diffi-

COMMENT/Continued

culties involved have increased because of the long Medicare payment lag due to budget cutbacks. The crisis faced by many millions of retirees — as well as by working families who may encounter a concentrated bad health period wherein cash flow becomes almost nonexistent — will be made clear by my own experience.

I have had a series of health problems, in which the doctors usually require payment in full at the time of service. Even though these services are covered by my insurance in full or nearly so, most Mississippi physicians are unwilling to wait for any part of their fees. They will file Medicare, but require advance payment of all. They are unwilling to share the burden of delay in insurance payments with the patient.

I had a bleeding leg veinule, which, after emergency treatment, required surgical evaluation. The surgeon's secretary informed me, at the time of making the appointment, that they would file — but did not accept — any insurance for office visits, as they did not think they should have to wait.

Following this episode, I went to Chicago on an annual professional assignment, for which I get a

small honorarium. A couple of days after the start of the meetings I had to be taken to Northwestern University's Memorial Hospital emergency room, and was hospitalized for six days, resulting from what was finally diagnosed as probable food poisoning in combination with diverticulitis. I was left with a hospital bill of well over \$6,000 in addition to doctors' bills. While most of this was covered by my insurance, it appeared that I might have around a thousand dollars of "out-of-pocket" expenses. I was very afraid that in "cold-hearted Chicago" I would be taken from the hospital to jail, since I did not have that much available cash. I was pleasantly surprised that they did not ask for even a dime at the time of discharge. They have all been willing to file my insurance and to wait for it and until I can pay the rest.

Back home, my internist, in checking me over, said I should have a growth on my shoulder removed. I called the dermatologist, explained the nature of the growth and asked the cost. It would be \$30 for consultation and \$85 to \$100 for the operation. I explained my present financial bind: while I had full insurance that should cover all of his charges, I could not bring \$130 with me at that time. The secretary said she sympathized and was

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sorry, but this was their policy. So I could not make an appointment.

The doctor-patient relationship today is certainly totally different from that of my youth 50 years ago. Physicians seem to wonder why patient attitudes have changed from a position involving the patient's profound respect for and even awe of the doctor as an almost supernatural being to one of apprehensive suspicion and covert hostility. I think I can give an example from my own experience of this great change in attitudes and the reason for it.

When I was twenty-two years old I had chronic sinusitis, which was treated by our family doctor with ephedrine and neo-silvol nose drops by prescription. Learning later that these drops, containing argyrol, could cause skin discoloration, I asked the doctor, who told me this was too rare to worry about. He continued the prescription. Within two years I developed an argyria; and, of course, discontinuing the drops did not reverse it. There is still no way of removing the silver pigment from the skin. This condition has cost me a great deal, both professionally and socially. I almost lost my first college teaching job forty years ago because the president found that some people thought I had Negro blood. In deep South white colleges of that time, it was grounds for dismissal. Others thought that I was cyanotic and too ill to work.

Now if any doctor did this to a patient today, you know only too well what would happen. Today, I would be in the offices of every lawyer on the Gulf Coast. Fifty years ago, it did not even occur to me to sue the doctor.

What is the difference? The main factor does not lie in the legal and insurance fields, as some may think, although these areas are by no means blameless. The big difference is in the doctors themselves. I can easily demonstrate this.

Fifty years ago, the family doctor was almost a member of the family. While we stood in awe of him, we respected him because we knew he cared for us personally, rich or poor. I was not going to sue a doctor who came to our home in the middle of the night to relieve my mother's kidney colic at a time when we were behind in the monthly statements; a doctor to whom I could go at any time, regardless of whether I had the money in my pocket; a doctor who I knew cared for me as a human being and not just as a piece of meat on a treatment table. In the long run, he got every penny we ever owed him; but he would have treated us anyway, and I knew that.

His little black bag carried few cures; but in the

doctor's hands, it had a magic beyond medicine. It represented the motto of the physicians of that day:

To cure sometimes;
To relieve often;
To comfort always.

Today the doctor has the technology to perform *real* magic; but its effects are lost in the impersonal shuffles between specialists and in the conversion of medicine from a personal art to an industrial enterprise.

The real miracles of today's medicine have become obscured by the unwritten but almost universally observed office visit limits of ten minutes of the doctor's actual time (I have checked this almost to the minute with over a dozen doctors during the past six years and have found only two exceptions), and by the almost ubiquitous interpersonal tension between patient and doctor that has developed in these recent years. What little comforting now offered to the patient is usually rendered by the nurse before the doctor comes in and/or after he departs for the person sitting anxiously on the treatment table next door. (Again, I have personally found an exception, and I am sure there are others.)

But there is one competing professional group upon which all of this has not been lost, and in the area of doctor-patient relationships they "march into heaven before you." These are the chiropractors. While I do not personally visit them, patients tell me that most take the time to listen and to comfort.

I am sure you are aware of a recent study which indicated that over 50% of medical patients feel their doctors interrupt and never give them a chance to express all of the symptoms which they have experienced. If the chiropractors have no scientifically supportable technology that is uniquely chiropractic, they do have the major therapeutic technique of cathartic listening, which is vital to all of the healing arts. And if depending upon their services involves a hazard to holistic health, so does depending upon other services which lack the comforting factor.

May I be permitted to hope that the medical profession will take a direction involving an adjustment between the competitive valences of human factors on the one hand and business-technical-economic factors on the other hand, an adjustment whereby both doctor and patient may enjoy and profit by the meaningful relationships of the past coupled with the technology of the future.

JAMES C. CRUMBAUGH, PH.D.
Gulfport, MS

LETTERS

To Dr. Walter Gough:

I would like to make some comments about your recent letter to the editor of JOURNAL MSMA (October 1986). Apparently you are very misinformed about many of the things which you commented on in your letter. Rather than simply reacting to some of the changes that are occurring in medicine in this day and age, why don't you take a little bit more of a rational approach and see where the real culprits are? Your peers did not cause Mississippi Foundation for Medical Care or the PRO's or DRG's or Utilization Review Committees to occur. These were set up by requirements of the federal government. In Mississippi, the Mississippi Foundation for Medical Care was set up so that physicians would be able to maintain some semblance of control of the review that we're currently undergoing. If the state medical association had merely stood by in the past, we would still be under a review by the PRO, but it would not be controlled by physicians. It would be controlled by administrators. This would happen

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regardless of whether there was a Mississippi Foundation for Medical Care or not.

Tell me, Dr. Gough, would you prefer to be evaluated by another physician who has his own private practice, his own patients (the same type of patients as yours), and the same type of family and social problems that many of our Medicaid and Medicare patients have, or an administrator with no medical experience whatsoever? Would you rather have your performance as a physician evaluated by another physician who practices in a small town, such as yourself, or by a physician hired for an 8-5 day who came from California and was not able to manage in private practice for one reason or another? Would you rather have your medical decisions evaluated by another physician who came from New York City, or by a foreign medical graduate who is unable to obtain license to practice? Or would you rather it be a board certified family physician who is taking time from his busy growing practice because he believes that we should all try to work together to help improve and work with this system rather than having it rammed down our throats by the federal government or private insurance? Rather than complaining that it "isn't fun anymore," Dr. Gough, since you were one of the ones who sat back and let most of this happen, why don't you work to help us make it a better system?

I went to medical school to practice medicine and to take care of my patients. I didn't go to medical school to write letters to my Congressmen or spend my off days in Jackson to help provide a physician review. If we all sit back in our chairs and ignore what is happening around us and say "I'm too busy to participate," changes will continue to occur and we will not have a voice in them. We currently have the restrictions on our practice because physicians were "too busy to become involved" and would much rather sit back and shoot darts at the things that are happening around them rather than getting involved to change them.

Sincerely,
DAVID B. WHEAT, M.D.
Starkville, MS

The editors invite your comments, inquiries, and suggestions. Please address letters to the Editors, *Journal of the Mississippi State Medical Association*, P.O. Box 5229, Jackson, MS 39216.

Medico-Legal Brief

Physician's Report on Disability Exam Protected

In a short but informative case, a New York court has ruled that a physician who conducts a disability examination cannot be subject to charges of malpractice based on his conclusions from the examination.

The plaintiff in this case was injured in an automobile accident and had to take a disability leave from her employment. Subsequently, under a collective bargaining agreement, she was examined by a physician, designated an "Impartial Medical Examiner," to determine if she was able to return to work. The physician was neither engaged by the plaintiff nor retained by the employer. After examining the plaintiff, the physician concluded she was fit to return to work, and he reported this to the employer. The plaintiff then returned to work after being informed she would lose her benefits if she did not. One month later, she was hospitalized because of an injury to her back.

The plaintiff blamed her later injury on a premature return to work, the cause of which was the physician's opinion given to her employer. She sued the physician for malpractice claiming he gave insufficient weight to a myelogram she submitted to him.

The court granted the physician's motion for a summary judgment and dismissed the case. It noted first that there can be a finding of malpractice only if the physician breaches his duty of care to the patient, and there can be a duty of care only if a physician-patient relationship is established. Focusing on whether a physician-patient relationship was established, the court divided this question into two aspects: the conduct of the examination and the findings based on the examination. It held that with respect to the conduct of a disability examination, a physician-patient relationship does exist to the extent that the physician has a duty to exercise due care in making the examination: an injury caused by a negligent act in conducting the examination would be malpractice. However, the physician-patient relationship would not extend beyond the duty of care in the examination to the act of reaching and reporting a conclusion: even an erroneous conclusion could not be challenged as malpractice.

While only two pages long, this case addresses questions that are often a concern to physicians. Turning first to the conduct of the examination, the court followed a 1980 New York case where the

plaintiff claimed he was injured by the physician during a disability examination. The earlier decision pointed out that the individual knew he was seeing a physician and was aware of the purpose of the examination and that in conducting the examination the physician agreed to "perform his common-law duty to use reasonable care and his best judgment in exercising his skill, and the law implies that he represented his skill to be such as is ordinarily possessed by physicians in the community." The court in the current case states further that the fact that the physician was not engaged to treat the patient does not negate the physician-patient relationship. But, the court adds, the plaintiff cannot maintain an action for a failure to treat, since there is no question here that the physician was not engaged for this reason.

Turning to the question of the physician's findings from his examination, the court relied on a 1981 New York case involving a psychiatrist who concluded, and later testified at a hearing, that a student she examined, at the request of school authorities, was "emotionally handicapped" and needed placement in a special program. There was here also a duty not to harm the individual during the examination, but beyond this the physician could not be subject to charges of malpractice for her conclusion: this was in part because no physician-patient relationship existed in this regard, but, more importantly, because of the broader and more basic reason that the possibility of a malpractice action would have a chilling effect on expert witnesses in any context.

The present court followed this reasoning. Even if the physician's conclusion were erroneous, to find it constituted malpractice could have "staggering implications." Such a holding would mean that "malpractice actions would lie whenever a physician, or other professional subject to malpractice claims, is engaged for expert opinion in any adversary situation, including workers' compensation claims, disability claims, personal injury actions, and medical malpractice actions. If a physician could be held liable for his report on a claimant in any of these actions, few physicians would ever be willing to render such opinions for fear of malpractice claims." The court, therefore, refused to recognize a physician-patient relationship, and corresponding duty, beyond the actual conduct of the disability examination, thus precluding a malpractice action based on the physician's opinion. — *Ferguson v. Wolkin*, 499 N.Y.S.2d 356 (N.Y. Sup. Ct., March 5, 1986) — From the Health Law Division, AMA.

BOOK REVIEW

***Mammography — A User's Guide.* Bethesda, Maryland: National Council on Radiation Protection and Measurements. 1986.**

It is now generally accepted that screening mammography reduces mortality from breast cancer, especially in women over fifty years of age. The medical community, however, has been slow to embrace this screening test. Perhaps it has been the cost. A recent survey of ten institutions in northern Mississippi found the charge to the patient for two-view screening mammography to range from a minimum of \$69.00 to a maximum of \$142.00, with the average cost being \$115.00.

Albeit important, cost, even in a poor state like Mississippi, is only one element. Other factors that have undoubtedly played a role in the failure of physicians to accept and implement screening mammography in their practices include the absence of data to clearly define both the lowest age at which

to begin screening and the frequency of repeat exams; the need for radiologists adequately trained to detect subtle changes on mammography; the need for specialized equipment; the concern about repeated radiation exposure and its carcinogenic potential; and finally, and intimately related to cost, the failure of third party insurers (including Medicare) to reimburse for the examination. In its most recent report, *Mammography — A User's Guide*, the National Council on Radiation Protection & Measurements (NCRP) addresses some of the above concerns.

At the suggestion of the National Cancer Institute, a committee of the NCRP comprised primarily of radiologists and technical advisors prepared the report. As you might expect, the report is intended primarily as a practical guide for radiologists and technicians directly involved in mammography examinations. However, the report does contain information that any physician who refers patients for screening mammography would find valuable. The report notes that the previously used, higher-dose direct film mammography has now been replaced by screen-film mammography and xeromammography. It discusses the differences, pros and cons, of these two alternate methods of mammography. The major difference highlighted between the two is that xeromammography imparts a higher radiation dose than does screen-film mammography. The latter, however, requires specialized equipment and may be more expensive.

Mammography — A User's Guide also emphasizes the importance of a vigorous quality assurance program. Such a program is essential to minimize the risk aspect of mammography. The report provides a simplified check list for that purpose. Surely this section should be read by all radiologists active in mammography and all physician members of hospital quality assurance committees.

In summary, *Mammography — A User's Guide* provides physicians with the information necessary to minimize the risk and maximize the benefits of screening mammography. Every hospital that offers mammography should obtain a copy for its library. Radiology departments in those hospitals should study and consider implementing the report's recommendations. In the fight against a disease that affects one of every eleven women in the United States, the findings of the report should not be ignored.

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MEDICAL ORGANIZATION

Board of Trustees Conducts Fall Meeting

The MSMA Board of Trustees conducted its regular fall meeting in Hattiesburg on December 12 and handled an extensive agenda to include approval of the association's 1987 budget and legislative program.

The 1987 budget projects revenues of \$2,292,500 for MSMA and MSMA Services, Inc. and expenses of \$2,119,925 to provide an excess of revenues over expenses of \$72,575. Revenue projections for the MSMA Benefit Plan and Trust amounting to \$2,055,000 were not included in the budget projections for 1987 but were reviewed by the Board as part of its oversight of the program.

The Board acknowledged that it would not recommend a dues increase in 1987 in light of the association's favorable financial position. This continues a trend established in 1978.

In considering the association's 1987 Legislative Program and various options for tort reform, the Board unanimously acted to join a coalition of business and industry groups. Among tort reform measures to be sought by the coalition are those to: abolish joint and several liability; place limits on non-economic and punitive damages; and reduce the statute of limitations.

In other activities, the Board heard reports on the status of planning for the association's 1987 annual session, implementation of the association sponsored HMO/IPA, and the building program. The Board also heard plans for implementing the MSMA-AMA sponsored Medical Payment System, an electronic medical billing program for MSMA members.

The Board received reports and expressed enthusiastic support for activities of a State Department of Health Task Force on Health Education chaired by the Board's vice chairman, Dr. Ed Hill, and activities of MSMA Component Societies to send representatives to the 1987 AMA Leadership Conference.

The Board of Trustees conducted its fall meeting in conjunction with a regular meeting of the South Mississippi Medical Society. Board members and officers attending the meeting included: Drs. David R. Steckler, Natchez, chairman of the Board of Trustees; J. Edward Hill, Hollandale, vice chairman; David M. Owen, Hattiesburg, secretary; Stan-

ley Hartness, Kosciusko; Lee H. Rogers, Tupelo; John P. Lee, Forest; Stanley A. Wade, Meridian; Roy D. Duncan, Pascagoula; W. Joseph Burnett, Oxford, president; W. Lamar Weems, Jackson, president-elect; Ralph L. Brock, McComb, immediate past president; Don Q. Mitchell, Jackson, secretary-treasurer; Carl G. Evers, Jackson, speaker of the House and James C. Waites, Laurel, vice speaker.

Legislative Forum Examines Health Care Issues

Legislative proposals affecting a broad range of health care issues were topics for discussion at a Legislative Forum last month in Jackson. The workshop, co-sponsored by the MSMA, the Mississippi Hospital Association, and the Mississippi Association of Hospital Governing Boards, preceded a reception for legislators.

Controversy and consensus marked the meeting's discussions. Participants voiced support of current efforts for tort reform, but some debate followed a presentation by Medicaid director B. F. Simmons, in which he described the proposed Health Care Access Act of 1987. Among other things, the bill would place an assessment on the net operating rev-



W. Joseph Burnett, M.D., president of MSMA, moderated a session at the January Legislative Forum in Jackson.

enue of all general acute hospitals in the state in order to establish a public Medical Assistance Trust Fund.

Dr. Alton B. Cobb, State Health Officer, outlined the Mississippi Health Improvement Plan for Mothers and Babies. The plan addresses the problems of infant mortality and teenage pregnancy through four approaches: access to services, regionalization of services, comprehensive prenatal care, and prevention of unintended pregnancies. As proposed, the plan would be funded by \$8.9 million from the state and \$15.6 million from federal sources.

Also on the program was Suzanne Pierce, director of Mississippi Physicians Health Plan, who presented an update on the organization of the MSMA/HMO/IPA.

Moderating the sessions were Dr. Joe Burnett, MSMA president, William H. Gillon, president of the MAHGB, and James C. Stubbs, chairman of the MHA Board of Governors.

Tort reform objectives described by Sam Cameron, MHA president, and Bucky Murphy, MSMA legal counsel, are designed to ensure that health services are available to the general population of the state. Cost and availability problems with medical liability insurance are forcing physicians to alter their practice patterns, and one result is diminishing

access to health services. MSMA and MHA are members of a tort reform coalition which seeks to: abolish or limit joint and several liability; limit non-economic damages; limit punitive damages; reduce statutes of limitations; provide a deterrent against the filing and continuation of frivolous lawsuits; and provide revision of and further restrictions on exemptions for jury service.

In addition to tort reform, MSMA's 1987 legislative proposals include provisions improving the Board of Medical Licensure's ability to deal with incompetent physicians, implementing a mandatory seat belt law, establishing a clean indoor air act, and developing a risk pool for uninsurable persons.

Cancer Symposium Is Next Month

"Family Resources and Cancer Treatment" is the topic of a symposium scheduled for March 20 at the Sheraton Regency Hotel in Jackson.

The symposium, targeted for primary care deliverers, aims to promote customized cancer care, tailored to the special needs of each patient and his/her family.

Among speakers are: Jack H. Medalie, M.D. of Cleveland, Ohio, who will discuss "Family Assessment" and "The Hidden Patient"; Gary B.

(Continued on page 55)



Representatives of hospitals, state health agencies, and the MSMA attended a Legislative Forum examining health care issues.

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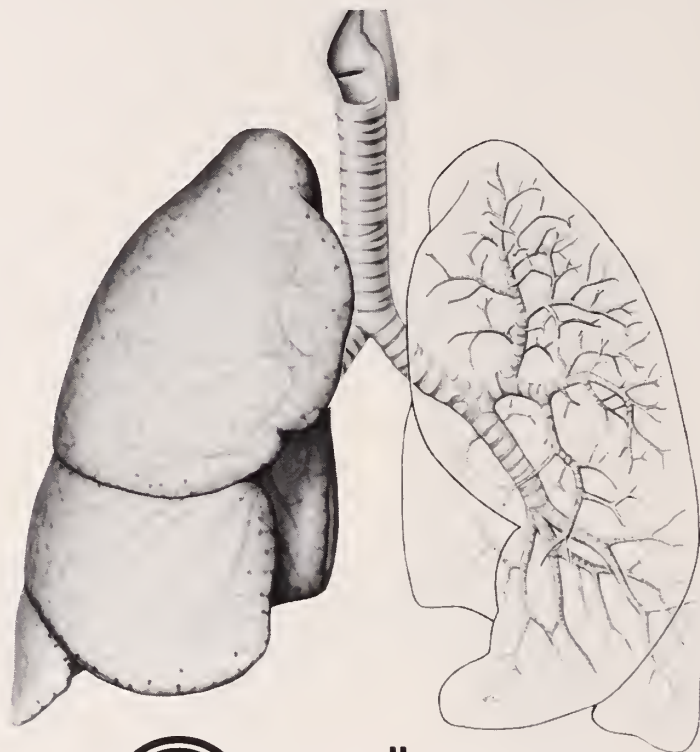
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- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- In renal impairment, safe dosage of Ceclor may be lower than that usually recommended. Ceclor should be administered with caution in such patients.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor

penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children)
- Abnormal urinalysis; elevations in BUN or serum creatinine
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NEW MEMBERS

ARMSTRONG, MARY-GAYLE, Jackson. Born Monroe, LA, Jan. 24, 1957; M.D., Louisiana State University School of Medicine, Shreveport, 1983; interned and family practice residency, University Medical Center, Jackson, MS, 1983-86; elected by Central Medical Society.

CADE, JAMES M., Hattiesburg. Born Kentwood, LA, Feb. 24, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned Methodist Hospital of Memphis, one year; elected by South Mississippi Medical Society.

CLARK, CHERRY GAY, Meridian. Born Vicksburg, MS, Nov. 29, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned and family practice residency, University Medical Center, Jackson, 1982-86; elected by East Mississippi Medical Society.

GLOVER, JEFFREY H., Jackson. Born Pell City, AL, Nov. 8, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and general surgery residency, University of Oklahoma, Tulsa Medical College Hospital, Tulsa, 1981-86; elected by Central Medical Society.

GOLDEN, M. KEITH, Pelahatchie. Born Coldwater, MS, May 15, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1983; internship and family practice residency, University of Tennessee School of Medicine Hospital, Jackson, TN, 1983-86; elected by Central Medical Society.

INGRAM, THOMAS EDWARD, Jackson. Born Cleveland, MS, April 6, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1975; interned and neurology residency, University Medical Center, Jackson, MS, 1975-79; elected by Central Medical Society.

JOE, DAVID S., Canton. Born Indianola, MS, Dec. 8, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned and family practice residency, University Medical Center, Jackson, 1977-80; elected by Central Medical Society.

KILLEBREW, LARRY H., Gulfport. Born Greenwood, MS, Feb. 10, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and general surgery residency, University Medical Center, Jackson, 1978-83; elected by Coast County Medical Society.

LAKE, CHESTER H., JR., Jackson. Born Memphis, TN, July 30, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and one year anesthesiology residency, University Medical Center, Jackson, 1983-85; anesthesiology residency, University of Cincinnati, Ohio, one year; elected by Central Medical Society.

LIDDELL, HAL THOMPSON, Hattiesburg. Born Jackson, MS, Oct. 7, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and general surgery residency, University of Tennessee, Memphis, 1980-83; urology residency, Vanderbilt, Nashville, 1983-86; elected by South Mississippi Medical Society.

MAXWELL, WILBURN MARET, Jackson. Born Greenwood, MS, Dec. 13, 1946; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and anesthesiology residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

MINDER, JOSEPH, K., Clarksdale. Born Bethlehem, March 23, 1952; M.D., The American University

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of Beirut School of Medicine, Beirut, Lebanon, 1978; interned one year, same; general surgery residency, University of Illinois, Peoria, one year; urology residency, St. Louis University Hospitals, St. Louis, MO, 1982-85; elected by Clarksdale & Six Counties Medical Society.

MOORE, HUGH CARLTON, Tupelo. Born Olney, TX, Aug. 26, 1933; M.D., University of Texas Southwestern Medical School, Dallas, 1959; interned one year, University of Kansas; pathology residency, St. Joseph's Hospital, Ft. Worth, TX, 1960-61; pathology residency, University of Kansas, Kansas City, KS 1961-64; elected by Northeast Mississippi Medical Society.

NADEAU, STEPHEN E., Jackson. Born Cairo, Egypt, Dec. 9, 1947; M.D., University of Florida College of Medicine, Gainesville, 1977; interned, Shands Teaching Hospital, Gainesville, FL, one year; neurology residency and fellowship in behavioral neurology, same, 1978-82; elected by Central Medical Society.

OVERSTREET, RAYMOND G., Columbus. Born Jackson, MS, June 16, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and psychiatry residency, Baylor College of Medicine, Houston, TX, 1982-85; elected by Prairie Medical Society.

PARKER, A. FREDERICK, II, Jackson. Born Kosciusko, MS, May 30, 1946; M.D., University of Mississippi School of Medicine, Jackson, 1972; interned Baroness Erlanger Hospital, Chattanooga, TN, one year; general surgery residency, University of Tennessee, Chattanooga, 1972-76; pediatric surgery residency, Children's Orthopedic Hospital, Seattle, WA, 1976-78; elected by Central Medical Society.

PAYMENT, MICHAEL F., Jackson. Born Jackson, MS Aug. 21, 1956; M.D., University of Mississippi

School of Medicine, Jackson, 1983; interned and internal medicine residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

PORTER, W. C., JR., Vicksburg. Born Meadville, PA, April 22, 1955; M.D., University of Texas Medical Branch, Galveston, 1981; interned and orthopedic surgery residency, John Peter Smith Hospital, Ft. Worth, TX, 1981-86; elected by West Mississippi Medical Society.

SEVERANCE, HARRY W., JR., Jackson. Born Wilson, NC, May 21, 1948; M.D., Duke University School of Medicine, Durham, NC, 1981; interned and medicine residency, Pitt County Memorial Hospital, Durham, NC, 1982-86; elected by Central Medical Society.

TALKING, JAMES, M., Jackson. Born Natchez, MS, July 17, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned, one year, University Medical Center, Jackson, orthopedic surgery residency, Jacksonville, FL, 1981-85; sports medicine fellowship, University of Chicago, 1985-86; elected by Central Medical Society.

TURNER, BETTY, H., Kosciusko. Born Middleboro, KY, Aug. 29, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned Thompson Children's Hospital Chattonooga, TN, one year; pediatric residency, University Medical Center, Jackson, MS, 1984-86; elected by North Central Medical Society.

TURNER, JACKEY D., Kosciusko. Born Tupelo, MS, Nov. 5, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned one year, Erlanger Medical Center, Chattanooga, TN; family medicine residency, University Medical Center, Jackson, MS, 1984-86; elected by North Central Medical Society.

WOLFE, BOBBY JOE, JR., Brandon. Born Pine Bluff, AR, June 2, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1974; family medicine residency, one year, University Medical Center, Jackson; elected by Central Medical Society.

**119th Annual Session
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DEATHS

CALHOUN, LAURIE L., Pascagoula. Born Moss Point, MS, Feb. 17, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned Medical College of Virginia, Richmond, one year; pediatric residency, University of South Alabama Medical School, Mobile, 1980-82; neonatology fellowship, University of Mississippi Medical School, Jackson, 1982-84; died October 10, 1986, age 32.

DAVIS, JAMES B., Pascagoula. Born Poplarville, MS, Oct. 22, 1932; M.D., University of Mississippi School of Medicine, Jackson, 1961; interned Mobile General Hospital, Mobile, AL, one year; surgery residency, same, 1962-65; died October 1, 1986, age 54.

DRAUGHN, DANIEL H., Jackson. Born Hattiesburg, MS, Aug. 28, 1936; M.D., University of Mississippi School of Medicine, Jackson, 1961; interned Letterman General Hospital, San Francisco, one year; pediatric residency, Fitzsimons General Hospital, Denver, 1962-64; died Sept. 22, 1986, age 50.

ECKFORD, JOHN F., Starkville. Born Starkville, MS, Dec. 21, 1899; M.D., Tulane University School of Medicine, New Orleans, 1926; interned Touro Infirmary, New Orleans, one year; died Nov. 12, 1986, age 86.

FEIBELMAN, N. D., Vicksburg. Born Vicksburg, MS, Aug. 20, 1919; M.D., Tulane University School of Medicine, New Orleans, 1944; interned Touro Infirmary, New Orleans, one year; surgery residency, Ft. Sanders Hospital, Knoxville, TN, one year; Knoxville General Hospital, one year; surgery fellowship, Tulane, New Orleans, one year; died Nov. 11, 1986, age 67.

GALLOGLY, JOHN A., Jackson. Born Milwaukee, WI, 1913; M.D., Marquette University School of Medicine, 1940; began practicing in Jackson 1948; died Oct. 9, 1986, age 73.

ROSS, THOMAS G., Jackson. Born Puckett, MS, Dec. 22, 1914; M.D., Tulane University School of Medicine, New Orleans, 1940; interned Erlanger one year; died Dec. 17, 1986, age 71.

SIMMONS, OMAR, Newton. Born Louin, MS, 1897; M.D., University of Tennessee School of Medicine, Memphis, 1927; interned John Gaston Hospital, Memphis; Past President of Mississippi State Medical Association; died Dec. 9, 1986, age 89.

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PERSONALS

JOHN D. BURK of Tupelo spoke on diabetes awareness to the Lions' Clubs in Fulton and Aberdeen.

BENJAMIN M. CARMICHAEL of Hattiesburg received the Hub Award, presented annually in recognition of outstanding contributions to the community and dedication to public service.

C. RALPH DANIEL, III of Jackson gave two talks on nail disorders at the annual meeting of the American Academy of Dermatology in New Orleans.

RICHARD J. FIELD, JR. of Centreville was named Grand Marshal of the 1986 Liberty Christmas Parade by the Liberty Chamber of Commerce.

DAVID J. GANDY of Jackson recently was named a fellow of the American College of Surgeons.

JULIAN HILL of Tupelo announces affiliation of the North Mississippi Clinical Community Oncology Program with the M. D. Anderson Hospital and Tumor Institute of Houston, Texas.

SIMA G. ISSEN has associated with Internal Medical Associates for the practice of internal medicine at 425 Hospital Drive in Columbus.

CARL KELLUM, JR. of Tupelo has been named a fellow of the American College of Gastroenterology.

JOHN B. LEVENS of Bay St. Louis announces the affiliation of ALLAN COUGLE for the practice of pediatric cardiology.

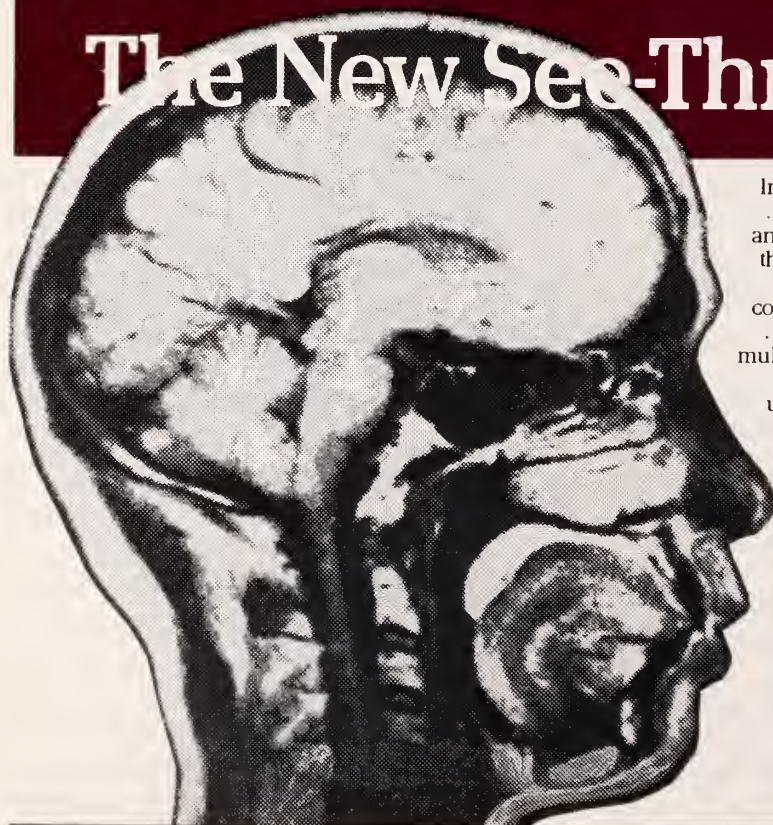
RONALD R. LUBRITZ of Hattiesburg was director of the Advanced Cryosurgery Forum of the American Academy of Dermatology held in connection with the academy's annual meeting in New Orleans.

WILLIAM S. MAYO has associated with Gamble Brothers and Archer Clinic of Greenville for the practice of ophthalmology.

FRANK MORGAN of Jackson travelled to Puerto Rico in December to assist the Puerto Rico medical board in administering the FLEX examination.

FRANCIS S. MORRISON of UMC recently chaired a session on leukemias and myeloproliferative disorders at the annual meeting of the American Society of Hematology in San Francisco.

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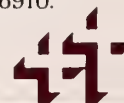
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SESHADRI RAJU of UMC has accepted an invitation to serve as a member of the International Advisory Committee for the Fourth European-American Symposium on Venous Diseases to be held in Washington, DC.

E. D. REYNOLDS of Clinton announces his retirement from the practice of medicine.

JOHN SCHIMMEL of Jackson recently participated in the Plastic Surgery Educational Foundation's two-day symposium on lasers in Orlando, Florida.

W. LYNN STRINGER of Jackson recently was named a fellow of the American College of Surgeons.

The Intensive Care Unit at Hinds General Hospital has been dedicated in tribute to HANS KARL STAUSS of Jackson.

LAMAR WEEMS of UMC has received the Distinguished Service Award from the National Kidney Foundation.

CANCER SYMPOSIUM/Continued from page 50

Weiss, M.D., Ph.D., of Galveston, Texas, who will speak on "Advances in Cancer Treatment: An Expensive Computer Game?" and "Management of Common Symptoms of Cancer"; and B. Lewis Barnett, M.D., of Charlottesville, Virginia, who will present "Light and Warmth: Family Practice as a Way of Life."

The symposium is co-sponsored by the American Cancer Society, Mississippi Division, and the Mississippi Academy of Family Physicians. It is accredited for seven CME hours and .7 CEU. Registration fee is \$25.00. For more information contact: Lodovico Balducci, M.D. (362-4472, Ext. 1134) or D. Melessa Phillips, M.D. (984-5404).

THE PRESIDENT SPEAKING/Continued from page 42

meet the goals set out by MSMA at the inception of this endeavor.

I have called this to our attention again to remind all of us that these changes do not just happen overnight and are directed by the House of Delegates, which is the true governing body of MSMA. I have also called it to our attention to remind us of the fact that many dedicated members worked hard to investigate and direct this endeavor. This committee, board members and delegates deserve our appreciation! This new board desires and needs our continued input.

RECOLLECTIONS

Twenty years ago JOURNAL MSMA's editorial page included a report of the Committee on Mental Health, which identified training of personnel as the first priority in meeting the state's needs in the areas of mental health and mental retardation. The committee expressed opposition to the hasty establishment of service facilities before necessary personnel were available to staff the facilities, and recommended establishment of a training center at the University Medical Center.

In his president's page article of the same issue (February 1967), Dr. J. T. Thompson of Moss Point reiterated the need for trained personnel to staff the many new health care facilities under construction. He urged physicians to take a leadership role in assisting young people in securing authoritative information of health careers. He commended the MSMA Auxiliary for its promotion of allied health careers, particularly its emphasis on nurse recruitment.

A 1967 news story revealed that the average American spent \$21 on medicines — \$15.40 for prescription drugs and \$5.60 for over the counter items. The average prescription cost \$3.60, only a moderate increase during the previous decade.

Review A Book

The following books have been received. Members of MSMA interested in reviewing any of these volumes should address their requests to Editor, JOURNAL MSMA, P.O. Box 5229, Jackson, MS 39216. After submitting to the JOURNAL a review for publication, you may keep the books for your personal libraries.

Clinical Electrocardiography: A Primary Care Approach.

Ken Grauer, M.D. and R. Whitney Curry, Jr., M.D. Oradell, New Jersey: Medical Economics Books, 1987. \$24.95.

We Are Not Alone: Learning to Live with Chronic Illness.

Sefra K. Pitzele, Minneapolis: Thompson and Company, 1985. \$14.95.

"I'D LIKE TO MAKE AN APPOINTMENT WITH THE DOCTOR"

Be prepared, Doctor. More patients will be asking about colorectal cancer. According to an ACS survey*, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer. We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, NY. 10016.



*"Cancer of the Colon and Rectum. Summary of Public Attitude Survey," *Ca* 33: 359-365, 1983 (Nov.-Dec.).

This space contributed as a public service.

— Next Month in JOURNAL MSMA —

**James Grant Thompson Memorial Lecture:
Surgical Management of Poisonous
Snakebite**

**Acute Appendicitis Presenting as a Scrotal
Abscess**

**Carcinoma in a Meckel's Diverticulum:
Case Report and Literature Review**

PLACEMENT SERVICE

EMERGENCY PHYSICIANS WANTED. Part-time and full-time positions in northeast Mississippi. Call (601) 328-8385.

ONCOLOGIST to join Internal Medicine Clinic in Laurel, MS. John M. Wallace, M.D., P.O. Box 2756, Laurel, MS 39440; (601) 649-2863.

BE A "WINTER TEXAN" INTERNIST. Enjoy the warm, beautiful Rio Grande Valley while practicing internal medicine with an internist. Texas license essential. Salary, living accommodations and malpractice insurance. Send curriculum vitae. 104 South Bryan Road, Mission, TX 78572 or phone (512) 585-2783 for more information.

PHYSICIANS NEEDED

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

Mississippi Emergency Association, P.A. (MEA) is a physician-owned and managed group committed to the financial security and personal development of each physician member. Compensation will vary depending on qualifications, experience, and work location. All inquiries will be kept confidential.

POSITION AVAILABLE IMMEDIATELY! A 409 bed hospital with a 24-hour Emergency Department in Jackson, Mississippi is looking for a full-time, Board Certified physician with two or more years experience. Excellent compensation and benefits.

POSITION AVAILABLE JULY 1, 1987! An 85 bed hospital with a 24-hour Emergency Department in Brandon, Mississippi is looking for a full-time, Board Qualified physician. Excellent compensation and benefits.

POSITION AVAILABLE JULY 1, 1987! A 160 bed Medical Center with a 24-hour Emergency Department in McComb, Mississippi is looking for a full-time Board Qualified physician. Opportunity for Directorship. Excellent compensation and benefits.

For more information, please write or call:

Sheila M. Lunceford, Assistant Administrator
P.O. Box 12917
Jackson, MS 39236-2917
Phone: (601) 366-6503

CLASSIFIED

FOR SALE: Professional building in Mendenhall, MS occupied by physicians for 12 years and leased until March 1987 by two physicians in general practice. Brick, 1,500 sq. ft. Ideal for general physician or medical specialty. \$65,000. Owner will finance. Contact: Dr. John Baldwin, 303 Raintree Place, Pineville, LA 71360; (318) 448-3098.

1986 MODEL AMES SERALYZER. Three months in use. Willing to sell below cost. Call (601) 825-6006.

MEDICAL OFFICE SPACE FOR LEASE. 1,000 square feet, adjoining new pediatric clinic. Will design to suit tenant. Good location in rapidly-growing area of Northwest Rankin County. Convenient to hospitals. Lease terms negotiable. Call 992-0110; 982-4081.

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MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 21-25, 1987, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 119th Annual Session, June 3-7, 1987, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 29-August 1, 1987, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale, Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrich, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. William Billington, Secy., 731 Medical Center Dr., West Point, MS 39773. Counties: Clay, Oktibeha, Lowndes, Noxubee.

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

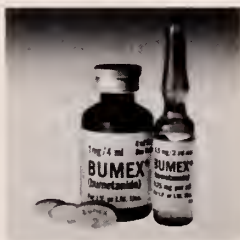
Council on Scientific Assembly Mississippi State Medical Association 735 Riverside Drive Jackson, MS 39216	Mississippi Chapter American College of Surgeons Box 5229 Jackson, MS 39216
North Mississippi Medical Center 830 Gloster Avenue Tupelo, MS 38801	North Panola County Hospital Drawer 160 Sardis, MS 38666
Forrest General Hospital Box 1897 Hattiesburg, MS 39401	Singing River Hospital P.O. Box 112 Pascagoula, MS 39567
Mississippi Baptist Hospital 1225 N. State Street Jackson, MS 39201	Magnolia Hospital Alcorn Drive Corinth, MS 38834
Gulf Coast Community Hospital 4642 W. Beach Boulevard Biloxi, MS 39531	Greenwood Leflore Hospital 1508 Leflore Avenue Greenwood, MS 38930
Jefferson Davis Memorial Hospital Box 1488 Natchez, MS 39120	Gulfport Memorial Hospital 4500 13th Street Gulfport, MS 39501
King's Daughter Hospital Box 948 Brookhaven, MS 39601	Oxford-Lafayette County Hospital P.O. Box 946 Oxford, MS 38655
Riverside Hospital Lakeland Drive Jackson, MS 39208	
Biloxi Regional Medical Center 1559 Lafayette St. Biloxi, MS 39533	
Jeff Anderson Regional Medical Center 2124 14th St. Meridian, MS 39301	
Northwest Mississippi Regional Medical Center Box 1218 Clarksdale, MS 38614	

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WARNING: Bumex (bumetanide/Roche) is a potent diuretic which, if given in excessive amounts, can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dosage schedule have to be adjusted to the individual patient's needs. (See under DOSAGE AND ADMINISTRATION in complete product information.)

INDICATIONS AND USAGE: Edema associated with congestive heart failure, hepatic and renal disease, including the nephrotic syndrome.

Almost equal diuretic response occurs after oral and parenteral administration of Bumex. If impaired gastrointestinal absorption is suspected or oral administration is not practical, Bumex should be given by the intramuscular or intravenous route.

Successful treatment with Bumex following instances of allergic reactions to furosemide suggests a lack of cross-sensitivity.

CONTRAINDICATIONS: Anuria. Hypersensitivity and in patients in hepatic coma or in states of severe electrolyte depletion. Although Bumex can be used to induce diuresis in renal insufficiency, any marked increase in blood urea nitrogen or creatinine, or the development of oliguria during therapy of patients with progressive renal disease, is an indication for discontinuation of treatment.

WARNINGS: Dose should be adjusted to patient's needs. Excessive doses or too frequent administration can lead to profound water loss, electrolyte depletion, dehydration, reduction in blood volume and circulatory collapse with the possibility of vascular thrombosis and embolism, particularly in elderly patients.

Prevention of hypokalemia requires particular attention in patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis and ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, certain diarrheal states, or other states where hypokalemia is thought to represent particular added risks to the patients.

In patients with hepatic cirrhosis and ascites, sudden alterations of electrolyte balance may precipitate hepatic encephalopathy and coma. Treatment in such patients is best initiated in the hospital with small doses and careful monitoring of the patient's clinical status and electrolyte balance. Supplemental potassium and/or spironolactone may prevent hypokalemia and metabolic alkalosis in these patients.

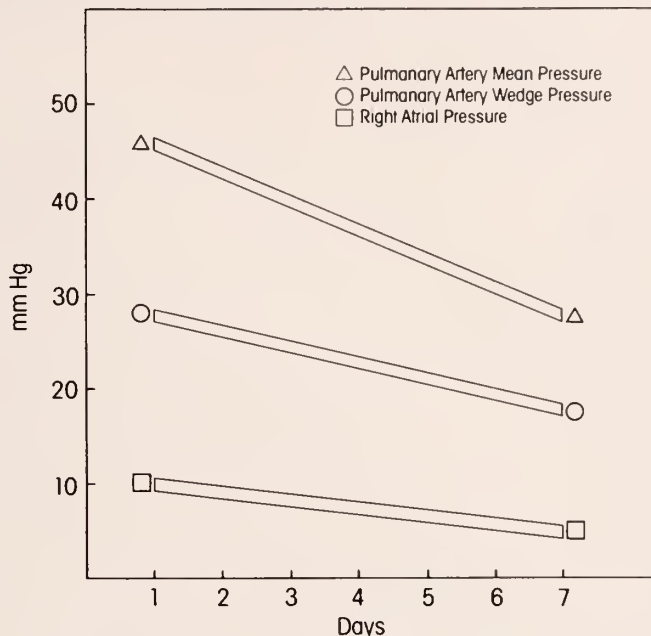
In cats, dogs and guinea pigs, Bumex has been shown to produce ototoxicity. Since Bumex is about 40 to 60 times as potent as furosemide, it is anticipated that blood levels necessary to produce ototoxicity will rarely be achieved. The potential for ototoxicity increases with intravenous therapy, especially at high doses.

Patients allergic to sulfonamides may show hypersensitivity to Bumex.

PRECAUTIONS: Measure serum potassium periodically and add potassium supplements or potassium-sparing diuretics, if necessary. Periodic determinations of other electrolytes are advised in patients treated with high doses or for prolonged periods, particularly in those on low salt diets. Hyperuricemia may occur. Reversible elevations of the BUN and creatinine may occur, especially with dehydration and in patients with renal insufficiency. Bumex may increase urinary calcium excretion.

Possibility of effect on glucose metabolism exists. Periodic determinations of blood sugar should be done, particularly in patients with diabetes or suspected latent diabetes.

Significantly improves hemodynamics



Ten patients with CHF showed marked hemodynamic improvement after seven days of BUMEX[®] (bumetanide/Roche) (mean values \pm SE). Adapted from Olesen, *et al*¹

References: 1. Olesen KH, *et al* *Postgrad Med J* 51(Suppl 6) 54-63, 1975. 2. Handler B, Dhirga RC, Rosen KM. *J Clin Pharmacol* 21: 706-711, Nov-Dec 1981. 3. Brater DC, *et al* *Clin Pharmacol Ther* 34: 207-213, Aug 1983. 4. Brater DC, Fox WR, Chennovosin P. *J Clin Pharmacol* 21: 599-603, Nov-Dec 1981. 5. Davies DL, *et al* *Clin Pharmacol Ther* 15: 141-155, Feb 1974.

Patients should be observed regularly for possible occurrence of blood dyscrasias, liver damage or idiosyncratic reactions. Especially in presence of impaired renal function, use of parenterally administered Bumex should be avoided in patients to whom aminoglycoside antibiotics are also being given, except in life-threatening conditions.

Drugs with nephrotoxic potential and bumetanide should not be administered simultaneously. Since lithium reduces renal clearance and adds a high risk of lithium toxicity, it should not be given with diuretics.

Probenecid should not be administered concurrently with Bumex. Concurrent therapy with indomethacin not recommended.

Bumex may potentiate the effects of antihypertensive drugs, necessitating reduction in dosage. Interaction studies in humans have shown no effect on digoxin blood levels.

Interaction studies in humans have shown Bumex to have no effect on warfarin metabolism or on plasma prothrombin activity.

Pregnancy: Bumex should be given to a pregnant woman only if the potential benefit justifies the potential risk to the fetus.

Bumetanide may be excreted in breast milk.

Pediatric Use: Safety and effectiveness below age 18 not established.

ADVERSE REACTIONS: Muscle cramps, dizziness, hypotension, headache and nausea, and encephalopathy (in patients with preexisting liver disease).

Less frequent clinical adverse reactions are weakness, impaired hearing, rash, pruritus, hives, electrocardiogram changes, abdominal pain, arthritic pain, musculoskeletal pain and vomiting. Other clinical adverse reactions are vertigo, chest pain, ear discomfort, fatigue, dehydration, sweating, hyperventilation, dry mouth, upset stomach, renal failure, asterixis, itching, nipple tenderness, diarrhea, premature ejaculation and difficulty maintaining an erection.

Laboratory abnormalities reported are hyperuricemia, azotemia, hyperglycemia, increased serum creatinine, hypochloremia, hypokalemia, hyponatremia, and variations in CO₂ content, bicarbonate, phosphorus and calcium. Although manifestations of the pharmacologic action of Bumex, these conditions may become more pronounced by intensive therapy. Diuresis induced by Bumex may also rarely be accompanied by changes in LDH, total serum bilirubin, serum proteins, SGOT, SGPT, alkaline phosphatase, cholesterol, creatinine clearance, deviations in hemoglobin, prothrombin time, hematocrit, platelet counts and differential counts. Increases in urinary glucose and urinary protein have also been seen.

DOSAGE AND ADMINISTRATION:

Oral Administration: The usual total daily dosage is 0.5 to 2.0 mg and in most patients is given as a single dose.

Parenteral Administration: Administer to patients (IV or IM) with GI absorption problem or who cannot take oral. The usual initial dose is 0.5 to 1 mg given over 1 to 2 minutes. If insufficient response, a second or third dose may be given at 2 to 3 hour intervals up to a maximum of 10 mg a day.

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JOURNAL of the **MISSISSIPPI** State Medical Association



MARCH 1987, VOLUME XXVIII, NUMBER 3

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ASSURANCE Of A Firm Foundation

Stability... the most important feature to look for in your professional liability insurance provider. And something you can depend on with Medical Assurance Company of Mississippi.

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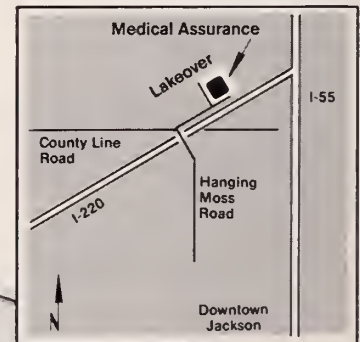
For answers to any questions you might have regarding medical malpractice insurance, feel free to come by our new office or call on us at any time.

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The professional liability company of Mississippi physicians, by Mississippi physicians, and for Mississippi physicians.



NEWSLETTER

March 1987

Dear Doctor:

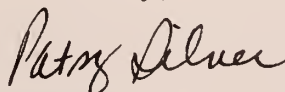
The AMA has criticized ABC for its lack of objectivity in a December 27 program, "Diagnosis: Malpractice," that sensationalized the complex professional liability problem. In a letter to the show's senior producer, Dr. James S. Todd pointed out shortcomings and urged a second program to put the problem in proper perspective for the public.

Among other comments, Dr. Todd said, "The viewer was left with an inaccurate and frightening impression that each encounter with a physician is fraught with great danger...We do not deny that negligence exists, but not to the degree indicated by the current level of litigation or the increasing level of awards made by juries...Physician discipline was given scant credit despite the joint actions of the Federation of State Medical Boards and the AMA to identify and eliminate errant physicians. Congressman Wyden was given great credit, ignoring the fact that organized medicine was instrumental in helping draft and pass his legislation.

"Totally omitted were the inequities of a judicial system where sixty percent of cases filed are without merit; fifty percent of dollars awarded go to five percent of the cases; and sixty percent of premium dollars are consumed by the system and never reach injured patients or physicians...Our current system fails adequately to distinguish between unfulfilled expectations and negligence. Your program missed the opportunity to educate health care consumers on what they can do to protect themselves from substandard care, and how the current level of litigation is diminishing the availability of needed care, inflating the cost of health care and stifling innovative technology."

Here's a way you can help make the Auxiliary's Silent Auction at the 119th Annual Session an even bigger success than last year! If you have items to donate (weekend trips, condo vacations, pottery, paintings, crafts, needlework, etc.) contact Sara Ann Owen, 604 Woodbine Lane, Hattiesburg, MS 39401 or call 264-8516. Proceeds from the auction benefit the AMA-ERF.

Sincerely,



Patsy Silver
Managing Editor

PHYSICIANS, SCHEDULE SOME TIME FOR YOUR COUNTRY.

Many physicians would like to devote some time to their country in a local Army Reserve unit. We know that making a weekend commitment can be difficult for most physicians. So it is practical for the Army Reserve units to be flexible about time. It's worth discussing.

Incidentally, in addition to satisfying your own desire to serve your country, there are exceptional opportunities to do something totally different from a day-to-day routine. Opportunities to study new areas of medicine, meet new people in your specialty, and be a part of one of the world's most advanced medical teams.

Discuss the opportunities with our Army Medical Personnel Counselor.

FOR SURGEONS LOOKING FOR A CHALLENGE.

Your challenge could be the Army Reserve unit near you. It's a unit that requires the services of surgeons.

You may wish to explore the challenge of teaching in a major medical center. You may wish to explore the special challenges of your specialty in triage. Certainly you'll be confronted by challenges very different from your daily routine.

You'll also have an opportunity to participate in a number of programs in which you'll be able to exchange views and information with other surgeons from all over the country.

The Army Reserve understands the time demands on a busy physician, so you can count on us to be totally flexible in making time for you to share your specialty with your country. We'll arrange your training program to work with your practice.

To find out about the benefits of serving with a nearby Army Reserve unit, we recommend you call our Army Medical Personnel Counselor.

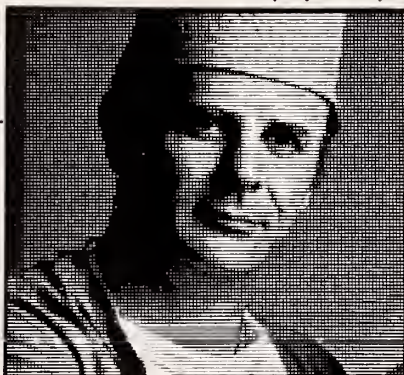
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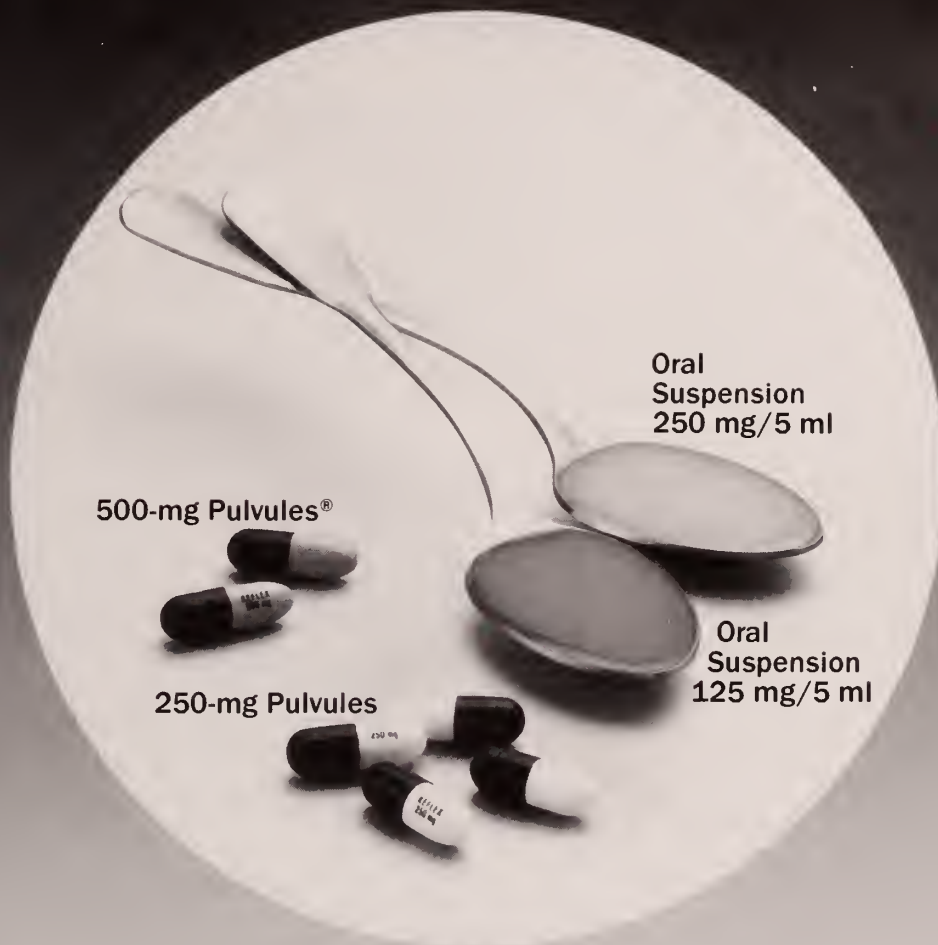
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In concert with diet in non-insulin-dependent diabetes mellitus

Glucotrol[®]
(glipizide) 5-mg and 10-mg
Scored Tablets 

**SYNCHRONIZED
SULFONYLUREA THERAPY**



Please see brief summary of Glucotrol[®] (glipizide) prescribing information on next page.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Reference:

1. Sachs R, Frank M, Fishman SK. Overview of clinical experience with glipizide. In *Glipizide: A Worldwide Review*. Princeton, NJ: Excerpta Medica; 1984. pp 163-172.

GLUCOTROL® (glipizide) Tablets

Brief Summary of Prescribing Information

INDICATIONS AND USAGE: GLUCOTROL is indicated as an adjunct to diet for the control of hyperglycemia in patients with non-insulin-dependent diabetes mellitus (NIDDM, type II) after an adequate trial of dietary therapy has proved unsatisfactory.

CONTRAINDICATIONS: GLUCOTROL is contraindicated in patients with known hypersensitivity to the drug or with diabetic ketoacidosis, with or without coma, which should be treated with insulin.

SPECIAL WARNING ON INCREASED RISK OF CARDIOVASCULAR MORTALITY: The administration of oral hypoglycemic drugs has been reported to be associated with increased cardiovascular mortality as compared to treatment with diet alone or diet plus insulin. This warning is based on the study conducted by the University Group Diabetes Program (UGDP), a long-term prospective clinical trial designed to evaluate the effectiveness of glucose-lowering drugs in preventing or delaying vascular complications in patients with non-insulin-dependent diabetes. The study involved 823 patients who were randomly assigned to one of four treatment groups (Diabetes, 19, supp. 2:747-830, 1970).

UGDP reported that patients treated for 5 to 8 years with diet plus a fixed dose of tolbutamide (1.5 grams per day) had a rate of cardiovascular mortality approximately 2-1/2 times that of patients treated with diet alone. A significant increase in total mortality was not observed, but the use of tolbutamide was discontinued based on the increase in cardiovascular mortality, thus limiting the opportunity for the study to show an increase in overall mortality. Despite controversy regarding the interpretation of these results, the findings of the UGDP study provide an adequate basis for this warning. The patient should be informed of the potential risks and advantages of GLUCOTROL and of alternative modes of therapy.

Although only one drug in the sulfonylurea class (tolbutamide) was included in this study, it is prudent from a safety standpoint to consider that this warning may also apply to other oral hypoglycemic drugs in this class, in view of their close similarities in mode of action and chemical structure.

PRECAUTIONS: Renal and Hepatic Disease: The metabolism and excretion of GLUCOTROL may be slowed in patients with impaired renal and/or hepatic function. Hypoglycemia may be prolonged in such patients should it occur.

Hypoglycemia: All sulfonylureas are capable of producing severe hypoglycemia. Proper patient selection, dosage, and instructions are important to avoid hypoglycemia. Renal or hepatic insufficiency may increase the risk of hypoglycemic reactions. Elderly, debilitated or malnourished patients and those with adrenal or pituitary insufficiency are particularly susceptible to the hypoglycemic action of glucose-lowering drugs. Hypoglycemia may be difficult to recognize in the elderly or people taking beta-adrenergic blocking drugs. Hypoglycemia is more likely to occur when caloric intake is deficient, after severe or prolonged exercise, when alcohol is ingested, or when more than one glucose-lowering drug is used.

Loss of Control of Blood Glucose: A loss of control may occur in diabetic patients exposed to stress such as fever, trauma, infection or surgery. It may then be necessary to discontinue GLUCOTROL and administer insulin.

Laboratory Tests: Blood and urine glucose should be monitored periodically. Measurement of glycosylated hemoglobin may be useful.

Information for Patients: Patients should be informed of the potential risks and advantages of GLUCOTROL, of alternative modes of therapy, as well as the importance of adhering to dietary instructions, of a regular exercise program, and of regular testing of urine and/or blood glucose. The risks of hypoglycemia, its symptoms and treatment, and conditions that predispose to its development should be explained to patients and responsible family members. Primary and secondary failure should also be explained.

Drug Interactions: The hypoglycemic action of sulfonylureas may be potentiated by certain drugs including non-steroidal anti-inflammatory agents and other drugs that are highly protein bound, salicylates, sulfonamides, chloramphenicol, probenecid, coumarins, monoamine oxidase inhibitors, and beta adrenergic blocking agents. *In vitro* studies indicate that GLUCOTROL binds differently than tolbutamide and does not interact with salicylate or dicumarol. However, caution must be exercised in extrapolating these findings to a clinical situation. Certain drugs tend to produce hyperglycemia and may lead to loss of control, including the thiazides and other diuretics, corticosteroids, phenothiazines, thyroid products, estrogens, oral contraceptives, phenytoin, nicotinic acid, sympathomimetics, calcium channel blocking drugs, and isoniazid. A potential interaction between oral miconazole and oral hypoglycemic agents leading to severe hypoglycemia has been reported. Whether this interaction also occurs with the intravenous, topical, or vaginal preparations of miconazole is not known.

Carcinogenesis, Mutagenesis, Impairment of Fertility: A 20-month study in rats and an 18-month study in mice at doses up to 75 times the maximum human dose revealed no evidence of drug-related carcinogenicity. Bacterial and *in vivo* mutagenicity tests were uniformly negative. Studies in rats of both sexes at doses up to 75 times the human dose showed no effects on fertility.

Pregnancy: Pregnancy Category C. GLUCOTROL (glipizide) was found to be mildly fetotoxic in rat reproductive studies at all dose levels (5-50 mg/kg). This fetotoxicity has been similarly noted with other sulfonylureas, such as tolbutamide and tolazamide. The effect is perinatal and believed to be directly related to the pharmacologic (hypoglycemic) action of GLUCOTROL. In studies in rats and rabbits no teratogenic effects were found. There are no adequate and well controlled studies in pregnant women. GLUCOTROL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Because recent information suggests that abnormal blood glucose levels during pregnancy are associated with a higher incidence of congenital abnormalities, many experts recommend that insulin be used during pregnancy to maintain blood glucose levels as close to normal as possible.

Nonteratogenic Effects: Prolonged severe hypoglycemia has been reported in neonates born to mothers who were receiving a sulfonylurea drug at the time of delivery. This has been reported more frequently with the use of agents with prolonged half-lives. GLUCOTROL should be discontinued at least one month before the expected delivery date.

Nursing Mothers: Since some sulfonylurea drugs are known to be excreted in human milk, insulin therapy should be considered if nursing is to be continued.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: In controlled studies, the frequency of serious adverse reactions reported was very low. Of 702 patients, 11.8% reported adverse reactions and in only 1.5% was GLUCOTROL discontinued.

Hypoglycemia: See PRECAUTIONS and OVERDOSAGE sections.

Gastrointestinal: Gastrointestinal disturbances, the most common, were reported with the following approximate incidence: nausea and diarrhea, one in 70; constipation and gastralgia, one in 100. They appear to be dose-related and may disappear on division or reduction of dosage. Cholestatic jaundice may occur rarely with sulfonylureas. GLUCOTROL should be discontinued if this occurs.

Dermatologic: Allergic skin reactions including erythema, morbilliform or maculopapular eruptions, urticaria, pruritus, and eczema have been reported in about one in 70 patients. These may be transient and may disappear despite continued use of GLUCOTROL. If skin reactions persist, the drug should be discontinued. Porphyrria cutanea tarda and photosensitivity reactions have been reported with sulfonylureas.

Hematologic: Leukopenia, agranulocytosis, thrombocytopenia, hemolytic anemia, aplastic anemia, and pancytopenia have been reported with sulfonylureas.

Metabolic: Hepatic porphyria and disulfiram-like alcohol reactions have been reported with sulfonylureas. Clinical experience to date has shown that GLUCOTROL has an extremely low incidence of disulfiram-like reactions.

Endocrine Reactions: Cases of hyponatremia and the syndrome of inappropriate antidiuretic hormone (SIADH) secretion have been reported with this and other sulfonylureas.

Miscellaneous: Dizziness, drowsiness, and headache have been reported in about one in fifty patients treated with GLUCOTROL. They are usually transient and seldom require discontinuance of therapy.

OVERDOSAGE: Overdosage of sulfonylureas including GLUCOTROL can produce hypoglycemia. If hypoglycemic coma is diagnosed or suspected, the patient should be given a rapid intravenous injection of concentrated (50%) glucose solution. This should be followed by a continuous infusion of a more dilute (10%) glucose solution at a rate that will maintain the blood glucose at a level above 100 mg/dL. Patients should be closely monitored for a minimum of 24 to 48 hours since hypoglycemia may recur after apparent clinical recovery. Clearance of GLUCOTROL from plasma would be prolonged in persons with liver disease. Because of the extensive protein binding of GLUCOTROL (glipizide), dialysis is unlikely to be of benefit.

DOSE AND ADMINISTRATION: There is no fixed dosage regimen for the management of diabetes mellitus with GLUCOTROL, in general, it should be given approximately 30 minutes before a meal to achieve the greatest reduction in postprandial hyperglycemia.

Initial Dose: The recommended starting dose is 5 mg before breakfast. Geriatric patients or those with liver disease may be started on 2.5 mg. Dosage adjustments should ordinarily be in increments of 2.5-5 mg, as determined by blood glucose response. At least several days should elapse between titration steps.

Maximum Dose: The maximum recommended total daily dose is 40 mg.

Maintenance: Some patients may be effectively controlled on a once-a-day regimen, while others show better response with divided dosing. Total daily doses above 15 mg should ordinarily be divided.

HOW SUPPLIED: GLUCOTROL is available as white, dye-free, scored diamond-shaped tablets imprinted as follows: 5 mg tablet—Pfizer 411 (NDC 5 mg 0049-4110-66) Bottles of 100, 10 mg tablet—Pfizer 412 (NDC 10 mg 0049-4120-65) Bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.

More detailed professional information available on request.

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Jackson, MS - Many patients may benefit from a free service available from the Mississippi Handicapped Readers Library. Talking books aid the homebound elderly, students with reading disorders, and disabled persons. Recorded books and magazines and braille materials are made available to eligible persons at no charge. For information or to receive applications for display in your office, call 354-7208.

Symposium on Physician Office Laboratories

Jackson, MS - Physicians considering establishing an office lab and personnel currently performing in-office lab testing are invited to a symposium sponsored by the Miss. State Society for Medical Technology. The meeting will be held April 2 at the Royal d'Iberville Hotel in Biloxi. The program includes an update on federal legislation and information on test methodologies and instrumentation. For information contact Pat Herrington, 968-3070.

AMA Issues Handbook On Mental Retardation

Chicago, IL - The AMA has published a newly updated handbook to help primary care physicians and other health care professionals diagnose and manage the problems of the mentally retarded. The AMA Handbook on Mental Retardation costs \$16.50 and may be ordered by writing to AMA Book and Pamphlet Fulfillment, OP-314, P.O. Box 10946, Chicago, IL 60610-0946 or by calling 1-800-621-8335.

Outbreaks of Mumps Reported in State

Jackson, MS - State public health officials last month reported scattered outbreaks of mumps throughout Mississippi. The outbreaks primarily involve junior and senior high school students, although some younger children have caught the disease. Physicians reported few adult cases. Health officials urged parents to check their children's medical records for proof of mumps immunizations.

Alpha Interferon Treatment for MS

Chicago, IL - Natural alpha interferon seems to have long-term treatment benefits for patients with relatively early and mild relapsing multiple sclerosis, suggests a study in the January Archives of Neurology. The study involved 12 patients reexamined some two years after completing a clinical trial. The report notes that administering the drug subcutaneously may be as effective as an intrathecal route and potentially less hazardous.



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To show you how many
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INDERAL[®] LA
(PROPRANOLOL HCl)

after a major nationwide trial...



An aerial photograph of a large, modern stadium at dusk. The stadium is filled with spectators, and the football pitch is brightly lit. The surrounding area includes parking lots, roads, and a cityscape in the background under a twilight sky.

...we had
to find
just the
right room.

60,073 patients (90%) who started on INDERAL[®] LA stayed on INDERAL LA.^{1*}

Surprising? Not really.

Because most patients on INDERAL LA (propranolol HCl) don't even know it's working.

A recent double-blind, placebo-controlled, crossover study in 138 hypertensive patients² revealed that INDERAL LA has a side effects profile unsurpassed by atenolol or metoprolol — which shows how well-tolerated once-daily INDERAL LA can be.

Sole therapy or concomitant therapy?

Fifty-nine percent of the time, INDERAL LA stood on its own.

The patients in the nationwide compliance trial were no different from yours. Generally when the antihypertensive regimen is complicated, compliance may become a problem. So, the effectiveness of INDERAL LA as once-daily monotherapy is a big plus. Of the remaining hypertensives in the program, 36% were controlled merely with the addition of a diuretic to INDERAL LA.

For the noncompliant patients in your practice, INDERAL LA may well be the answer.

Almost 20,000 of the patients in the nationwide compliance trial were identified as having been noncompliant with their previous antihypertensive therapy. Their physicians reported that 88% showed improved compliance when placed on once-daily INDERAL LA.

Control, comfort, and compliance

ONCE-DAILY
INDERAL[®] LA
(PROPRANOLOL HCl) LONG ACTING CAPSULES

Like conventional INDERAL Tablets, INDERAL LA should not be used in the presence of congestive heart failure, sinus bradycardia, cardiogenic shock, heart block greater than first degree, and bronchial asthma.

*After a 30-day trial with INDERAL LA, physicians reported that 90% of the patients would remain on INDERAL LA.

The one you know best keeps looking better

Please see next page for brief summary of prescribing information

The one you know best keeps looking better

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. Inderal LA is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal LA, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

Inderal LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal LA tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

Inderal LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal LA as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal LA has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal LA has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, Inderal LA also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

INDICATIONS AND USAGE. Hypertension: Inderal LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: Inderal LA is indicated for the long-term management of patients with angina pectoris.

Migraine: Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. Inderal LA is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal LA.

WARNINGS. CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or Inderal LA should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of Inderal LA therapy. Therefore, when discontinuance of Inderal LA is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal LA therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute Inderal LA therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema) PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal LA should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior

to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Inderal (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heart beat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

HYPERHYDROSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. General. Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy. Pregnancy Category C. Inderal LA has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal LA should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Inderal LA is excreted in human milk. Caution should be exercised when Inderal LA is administered to a nursing woman.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia, congestive heart failure, intensification of AV block, hypotension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.
Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.
Auto-Immune: in extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal LA tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal LA. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—Dosage must be individualized. Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—Dosage must be individualized. The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

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PEDIATRIC DOSAGE—At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

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REFERENCES:

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ORIGINAL PAPERS

Acute Appendicitis Presenting as a Scrotal Abscess

BENTON M. HILBUN, M.D. and

LUCAS O. PLATT, M.D.

Tupelo, Mississippi

A 2-YEAR-OLD WHITE MALE presented to the family pediatrician with a 24 hour history of nausea and vomiting. He was believed to have gastroenteritis and was treated with promethazine HCl suppositories and light diet. There was minimal improvement and the child continued to have fever and intermittent vomiting and diarrhea. This persisted for 48 hours and the parents noticed the left scrotal area to be swollen and reddened. The child was brought to the Emergency Department. The pediatrician found the tender, swollen and reddened scrotum and also abdominal tenderness with hypoactive bowel sounds. There was a temperature of 100.4°F and a white blood count of 16,000.

A presumptive diagnosis of torsion of the testis was made and urological consultation obtained. The urologist concurred and immediate operation with exploration of the left scrotum was carried out. There was free pus present beneath the tunica; however, the testis appeared normal. Cultures were taken and a drain placed. Approximately six hours later, the child was noted to have abdominal distention with marked tenderness. A repeat white blood count was 22,000. Surgical consultation was requested. At this time there was direct tenderness in the right lower abdomen with rebound tenderness and decreased bowel sounds. A diagnosis of perforated appendicitis was presumed, and it was felt the scrotal ab-

The sequelae of acute appendicitis with perforation are well known. The various complications include wound infection, intraabdominal abscess, septicemia, and generalized peritonitis, as well as the other postoperative complications that may attend any surgical procedure. From time to time, the authors note, an unusual complication is encountered that may be confusing or humbling to the attending physicians. They report such a case, describing the unusual presentation of acute appendicitis with perforation, presenting as a left scrotal abscess.

scuss was secondary to the appendicitis. At the time of laparotomy an acute suppurative appendicitis was found, which was perforated. Cultures taken at surgery revealed *E. Coli*, which was identical to the scrotal abscess culture. An appendectomy with drainage was carried out, the patient made an uneventful recovery and was discharged on the sixth postoperative day.

Discussion

In a review of the literature 1975-1985, we find two similar reported cases. The first was published in the urological literature and described a young adult with a postoperative pelvic abscess, following

Dr. Hilbun is engaged in the private practice of surgery and Dr. Platt is a urologist. Both practice in Tupelo, MS.

appendectomy which presented as a left scrotal abscess. The second was a case of a 9-year-old who underwent an appendectomy for a perforated retrocecal appendix, and on the sixth postoperative day developed a right scrotal abscess, which required drainage. Again, torsion of the testis was the pre-operative diagnosis.

In the review of these two cases and the analysis of the case we present, it seems apparent that a patent process vaginalis may exist in a percentage of patients that would allow the gravitation of intraperitoneal pus into the scrotum. There was no history of preexisting inguinal hernia or hydrocele in either of the younger patients, although the 31-year-old did have an undescended testis on the left, with a patent process vaginalis demonstrated at a later operation. It is also logical to assume that the inflammatory reaction in the process vaginalis may well obliterate the canal and alleviate the need for

later surgery.

There are numerous reports in the literature that point out the various presentations that appendicitis can masquerade, and many of these deal with urological problems, such as hematuria and pyuria, that might incriminate genitourinary infections or ureteral obstruction. We must also consider appendicitis simulating acute torsion of the testis. ★★

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Carcinoma in a Meckel's Diverticulum: Case Report and Literature Review

HANS W. ADAMS, M.D. and EDWARD M. REHAK, M.D.
Biloxi, Mississippi

THIS 51-YEAR-OLD white male was initially evaluated in September 1978 with a two-year history of progressive back pain, difficulty in walking, and anemia. His low back pain radiated into his legs, causing him to fall on several occasions. The pain was relieved by rest or six to eight aspirins per day. In two years his weight had dropped from 193 to 130 pounds because of poor appetite. He denied nausea, vomiting, dysphagia, melena and hematemesis, but had episodic hematochezia believed to be due to hemorrhoids.

Hodgkin's disease was diagnosed in 1958 with involvement of the cervical, axillary, and inguinal lymph nodes. He received radiation therapy and Leukeran, but had received no therapy for the last five years. He stated that on follow-up examinations, no recurrence of Hodgkin's disease had been noted.

In 1974 he was hospitalized due to diabetic ketoacidosis. He had no prior history of diabetes and had been on 36 units of NPH Insulin per day.

The patient had consumed no alcohol in the past two years, but prior to this had drank four to six beers per day. He admitted to smoking approximately two packs of cigarettes per day, but denied any hemoptysis, dyspnea, orthopnea, cough, or sputum production.

Family history was negative for cancer, Hodgkin's disease, heart disease, gastrointestinal disease and anemia, but his brother has diabetes mellitus.

On physical examination the patient appeared chronically ill. There was no jaundice. The lungs were over expanded with decreased breath sounds. There were no rales or rhonchi. The heart was normal. The abdomen was soft and nontender, and bowel sounds were normal. The liver was 14 cen-

timeters in length. The spleen tip was palpable. Rectal examination revealed no masses, but external hemorrhoids were noted. The spine was normal, and he was able to flex at the waist with help to 90 degrees. There was pain to deep palpation over the left iliac crest posteriorly. Reflexes were 2/4 symmetrical in the upper extremities and 1/4 symmetrical at the knees with absent ankle reflexes. There was proximal muscle weakness of the lower extremities. Straight leg raising on the right elicited back pain. There was no palpable lymphadenopathy.

Hemoglobin was 6.2 grams%, hematocrit 21%, MCV 76, platelet count 276,000, reticulocyte count 1%, serum iron 40, and the iron binding capacity was 245. The following tests were normal or negative: SMA-18, prothrombin time, partial thromboplastin time, serum carotene, serum B-12, serum folate, Bence-Jones proteins, creatinine clearance, VDRL, T-3, T-4, serum gastrin, acid phosphatase, serum protein electrophoresis, D-Xylose, Schilling's test, IVP, bone scan, upper GI series, barium enema, and EKG. Blood sugars ranged from 100 to 200 mg.%. A lumbar myelogram showed an obstruction at the L/2 L/3 level. Stool hemoccult tests were positive.

Surgery was performed on October 12, 1978. An enlarged spleen was removed. The remaining abdominal organs were normal except for a 6cm Meckel's diverticulum, which was removed. Multiple biopsies of the liver and fourth lumbar vertebra were obtained. Multiple periaortic lymph nodes were removed. The spleen weighed 450 grams and showed mild congestion. The lymph nodes had a normal architecture with acute and chronic reaction, and the sinusoids were filled with foamy macrophages containing a lipid material. Biopsy of the L/4 vertebra showed several fragments of cartilage and fibrous tissue with spicules of degenerated bone. The

From the Departments of Gastroenterology (Dr. Adams) and Pathology (Dr. Rehak), Gulf Coast Community Hospital, Biloxi, MS.

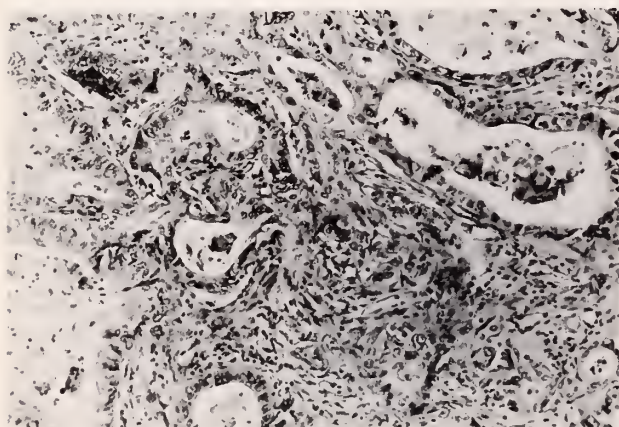
liver biopsy showed minimal fibrosis. The Meckel's diverticulum had a carcinoma.

In 1985 exploratory laparotomy was performed because of nausea, vomiting, and bowel obstruction. A small bowel obstruction was found and there was lysis of adhesions. There was no recurrence of his tumor.

Discussion

Meckel's diverticulum occurs in approximately two percent of the population and is difficult to diagnose preoperatively especially in the adult.¹ Most of these diverticula are asymptomatic and are incidental findings at the time of surgery. They are three times more common in the male than in the female. Two main complications are ulceration and intestinal obstruction. The mucosa of the diverticulum may be ileal, gastric, duodenal, pancreatic, or colonic. This mucosa can be involved with the same disorders that affect the mucosa in other parts of the body such as cancer, diverticulitis, or enteritis. Twenty percent of the diverticuli have gastric tissue and these usually cause clinical symptoms. Symptoms usually present in children and are due to ulceration of the gastric tissue with bleeding.

Primary tumors of the small intestine present with obstruction, intussusception, hemorrhage, and perforation. Small bowel tumors represent 1.5 percent of all gastrointestinal neoplasms.² Adenocarcinoma of the small bowel accounts for 35 to 50 percent of all cases of small bowel tumors. Adenocarcinoma occurs most frequently in the duodenum and jejunum with the ileum being an uncommon location. Liver metastases are common and are usually to the lung, peritoneum, cervix, and skin. The five year



Section of mucosa of diverticulum shows a moderately well differentiated adenocarcinoma which was invading the mucosa, submucosa, muscularis, and serosa (Magnification 45X. H + E Stain).

survival rate is approximately 17 percent in these patients.

Neoplasia is the least common complication of a Meckel's diverticulum. The most common tumor of a Meckel's diverticulum is a sarcoma of which only 42 cases have been reported.^{3,4} Carcinoid tumors follow in frequency after sarcoma, with adenocarcinoma being the least common cancer. Tumors arising from the gastric mucosa in the diverticulum are extremely rare with only four verified cases reported. However, it is possible that other carcinomas have arisen from the gastric mucosa, but have destroyed the original tissue before the histological examination. Johnson reported a carcinoma of a Meckel's diverticulum and reviewed the literature.⁵ He found 18 cases of carcinoma in a Meckel's diverticulum. Ewerth et al reported a patient with adenocarcinoma in a Meckel's diverticulum.⁶ This patient was treated with surgery and recurrence of his tumor was noted four months later. The patient died nine months after surgery. This case emphasizes the poor prognosis associated with carcinomas in a Meckel's diverticulum.

Henry-Amar reported that approximately ten percent of patients treated for Hodgkin's disease developed a second primary malignancy.⁷ Others have reported that treatment for Hodgkin's disease puts the patient at an increased risk to develop a second malignancy.⁷⁻¹⁰ Alexander and Altemeier emphasized the association of primary neoplasia of the small bowel with other neoplastic growths.¹¹ Wolf et al reported a patient with Hodgkin's disease and a duodenal sarcoma. They emphasized the relationship between radiotherapy induced tumors and the treatment for Hodgkin's disease.¹³

The present patient is interesting because he developed a cancer in a Meckel's diverticulum 20 years after being treated for his Hodgkin's disease. He had received both radiotherapy and chemotherapy for the Hodgkin's disease. The Meckel's diverticulum was an incidental finding at the time of surgery and all the lymph nodes removed showed no metastatic tumor. Seven years later, because of small bowel obstruction, abdominal exploration revealed no recurrence of his carcinoma. ★★★

P. O. Box 4717 (39531)

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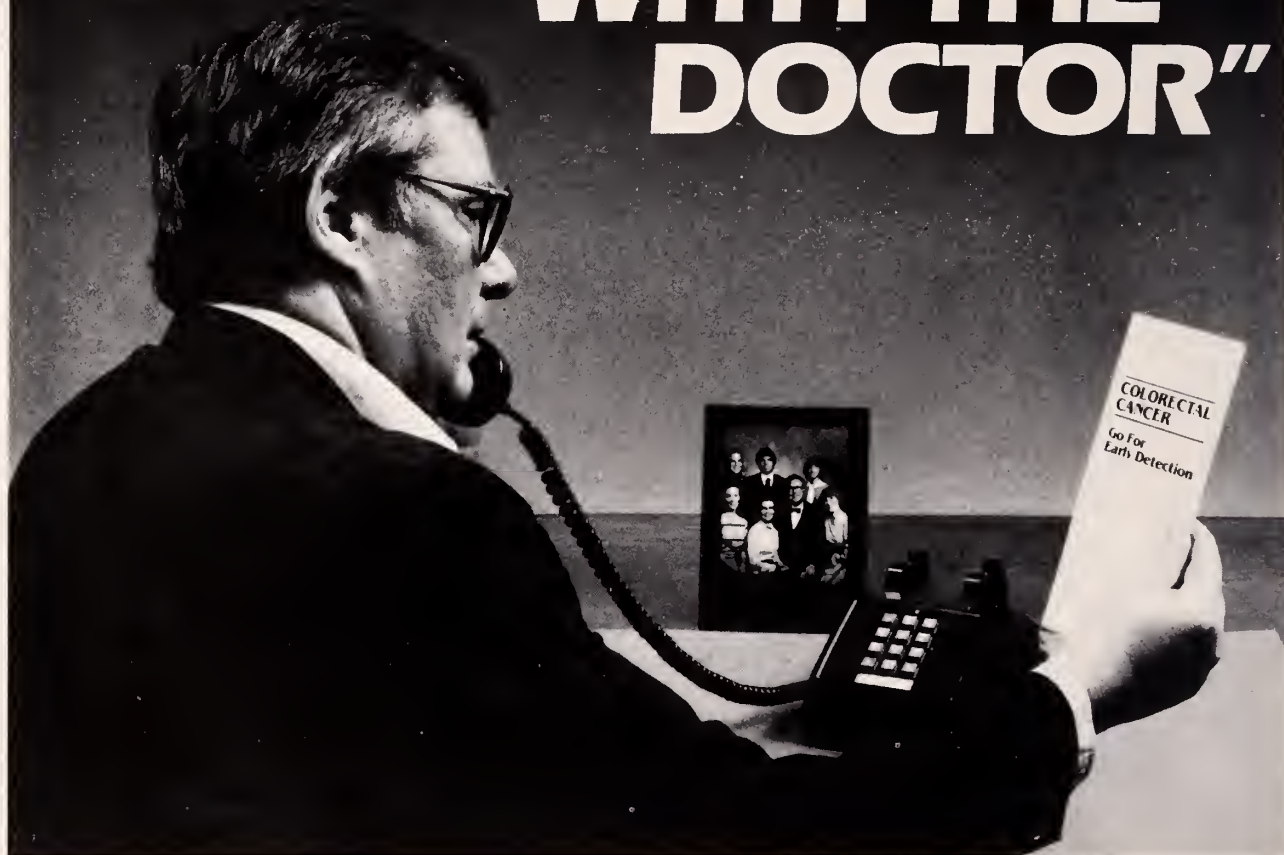
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*"Cancer of the Colon and Rectum: Summary of Public Attitude Survey," *CA* 33:359-365, 1983 (Nov.-Dec.).

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1. ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA

Three independent case control studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case control studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semiannual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration; it therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equestric doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY

The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a non-steroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb reduction defects. One case control study estimated a 4.7-fold increased risk of limb reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

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INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe vasomotor symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) Osteoporosis (abnormally low bone mass). Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae. PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens (See PRECAUTIONS.) The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (See Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Long-term continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. There are now reports that estrogens increase the risk of carcinoma of the endometrium in humans. (See Boxed Warning.) At the present time there is no satisfactory evidence that estrogens given to postmenopausal women increase the risk of cancer of the breast, although a recent study has raised this possibility. There is a need for caution in prescribing estrogens for women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease, or abnormal mammograms. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with

For atrophic vaginitis

PREMARIN® (Conjugated Estrogens)

Vaginal
Cream

0.625mg/g



caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Preexisting uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

- Increased sulfobromophthalen retention.
- Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability.
- Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG; free T4 concentration is unaltered.
- Impaired glucose tolerance.
- Decreased pregnandiol excretion.
- Reduced response to meprobamate test.
- Reduced serum folate concentration.
- Increased serum triglyceride and phospholipid concentration. As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome, amenorrhea during and after treatment, increase in size of uterine leiomyomata, vaginal candidiasis, change in cervical erosion and in degree of cervical secretion, cystitis-like syndrome, tenderness, enlargement, secretion (of breasts), nausea, vomiting, abdominal cramps, bloating, cholestatic jaundice, chloasma or melasma which may persist when drug is discontinued, erythema multiforme, erythema nodosum, hemorrhagic eruption, loss of scalp hair, hirsutism, steepening of corneal curvature, intolerance to contact lenses, headache, migraine, dizziness, mental depression, chorea; increase or decrease in weight, reduced carbohydrate tolerance, aggravation of porphyria, edema, changes in libido.

ACUTE OVERDOSEAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSEAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

- Given cyclically for short-term use only. For treatment of moderate to severe vasomotor symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.
- Given cyclically. Female castration. Osteoporosis. Female castration—1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off).

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three- to six-month intervals.

Usual dosage range: 2 to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

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James Grant Thompson Memorial Lecture

Surgical Management of Poisonous Snakebite

TED T. HUANG, M.D.
Galveston, Texas

THE USE OF ANTIVENIN and steroids, singularly or in combination, has been advocated as the method of managing patients suffering poisonous snakebite. The problem of tissue necrosis around the area of envenomation, usually not apparent initially, is considered an expected consequence of snakebite injury.

While the mortality due to poisonous snakebite remains low, the morbidity associated with the injury can be significant, especially in instances where biting injury results in bodily deformities. Of 63 patients who had been treated medically at our hospitals between 1952 and 1969, surgical removal of limbs or parts of the extremities was necessary in 29 despite the use of antivenin and steroids. Since 1970, we have changed our approach in handling envenomational injuries. The concept of surgical management is based upon the rationale that early removal of venom injected in the tissue can minimize the extent of venom absorption and thus not only curtail systemic venomous intoxication but also minimize the magnitude of tissue destruction, thus decreasing the possibility of secondary deformities.

Initial Management

Pain and anxiety are common reactions in envenomated victims. Patient assurance, continuous immobilization of the inflicted bodily part, and a detailed description of offending snake, if possible,

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The James Grant Thompson Memorial Lecture, delivered at the 117th Annual Session of the Mississippi Medical Association, Biloxi, Mississippi, May 15-19, 1985.



Figure 1. The findings of poisonous snakebite include fang marks, punctate bleeding, swelling, and ecchymosis, as seen in this patient who was brought to the Emergency Room within 45 minutes after the injury.

are important measures in initial patient management. Pain and discomfort in the extremity are not infrequently caused by an excessively tight tourniquet. A light application of the tourniquet is, therefore, recommended. The force of application should be tight enough to occlude the lymph flow but avoid arterial and/or venous occlusion. Removal of the tourniquet is recommended once the condition is under control. Continuous application of ice pack around the site of envenomation is useful not only to control pain but also to curtail enzymatic effects of injected venom in the tissues.

Routine laboratory studies should include a complete blood count, urinalysis and coagulation profile

studies. Platelet count, prothrombin time, partial thromboplastin time, and serum fibrinogen are determined at 12-hour intervals to ascertain any changes which may be induced by the venom.

A low dose analgesic administered in increments via an intravenous route is useful in controlling anxiety and pain. A broad spectrum antibiotic is also administered to curtail the possibility of infection caused by organisms normally harboured in the venom and the fangs. Tetanus prophylaxis is mandatory.

Operative Management

The indication and approach to surgical management of the snakebite wound vary depending upon factors such as the magnitude of envenomation, anatomical location of the wound, and the time elapsed since the injury. Clinical manifestations are governed by the quantity of venom injected, the mode of absorption, and the route of injection. Circulatory



Figure 2-A. A 54-year-old man who experienced a stinging pain in the volar surface of the left thumb while he was working in the field. Punctate wound, ecchymosis, and swelling were noted on examination 45 minutes following the injury.



Figure 2-B. An incisional inspection of the wound showed the extent of hemorrhagic changes exceeded the area ascertained from the surface.



Figure 2-C. The appearance of the wound six weeks later. The functional impediment of the thumb was minimal.

instability and frank collapse are common in individuals who have had injection of venom directly into the systemic circulation. Vigorous hemodynamic support via the replacement of blood and blood components is essential since massive extravasation is responsible for the pathogenesis of hypovolemia. A homologous transfusion of fresh blood is preferred. Fresh frozen plasma and packed cell transfusion may be used if appropriate donors are not available.

Assessing the quantity of venom injected into the tissue is essentially an impossible task. Clinical manifestations may be further obscured by the fact that a biting injury may or may not accompany actual envenomation. On the other hand, it is safe to assume that significant envenomation is lacking in patients showing minimal or no effects of venom three hours after the accident. Surgical intervention may be deferred in such instances but close, in-hospital observation is mandatory.

I. *Incisional Inspection of the Wound:* Findings of fang marks, ecchymosis and swelling around the site of bite are the signs suggestive of poisonous snakebite injury (see Figure 1). The magnitude of envenomations, however, can only be assessed qualitatively by evaluating the extent of hemorrhagic changes in the tissue. Opening of the wound over the fang marks is necessary in order to ascertain the exact extent of involvement in instances where other physical findings are too equivocal to determine the magnitude of envenomation.

II. *Excisional Therapy:* The original incision for wound inspection can be extended, especially in

instances where the injury involves the upper extremity, to reveal the extent of hemorrhagic changes, (see Figures 2A, 2B, 2C). An attempt is made to remove all tissues which appear hemorrhagic since this is indicative of envenomation. Structures such as nerves, tendons, and arteries are left undisturbed. Muscle mass, on the other hand, may be excised if it is grossly involved (see Figures 3A, 3B, 3C).

The extent of excision generally includes the skin overlying the area of envenomation when it involves a lower extremity, for an extensive underlining of the skin around the wound will lead to necrosis of the skin (see Figure 4).

The resultant wound is often left open for 48 to 72 hours because of possible further necrosis of the overlying skin. The wound is then either closed



Figure 3-B. Hemorrhagic necrosis of the biceps muscle was noted upon opening of the overlying skin.



Figure 3-A. A 36-year-old snake-handler was brought to the Emergency Room within 30 minutes following a five-foot Western diamondback rattlesnake bite in the left arm. An attempt was made to aspirate the venom by making cruciate incisions over the fang marks.



Figure 3-C. All tissues that appeared hemorrhagic were removed. The wound was later covered with a partial thickness skin graft.

secondarily or covered with a partial thickness skin graft. An immediate use of local flap or muscle flap is occasionally necessary if the coverage of tendons, nerves, and arteries is needed (see Figures 5A, 5B, 5C).

III. *Fasciotomy*: Extravasation of the blood and blood components into a muscular compartment is not an uncommon consequence of snakebite especially if the penetration of fangs is deep into the muscle. As the swelling of the muscle ensues, it can interfere with both the vascular and neural functions. Fasciotomy should be limited to those instances where an increase in intracompartmental pressure interferes with the functional integrity of structures within. Fasciotomy per se is not the treatment for poisonous snakebite injury (see Figure 6).

Post-Surgical Management

Coagulation abnormalities induced by injected venom often persist for a period of three to five days following the accident. The patient should be observed and monitored continuously even though the

wound shows no frank bleeding diathesis. Prothrombin time, platelet count and PTT typically remain within normal range during the first 24 hours. The serum fibrinogen level, in contrast, will decrease within few hours after envenomation. Although it can remain low for a period of 48 to 72 hours, the level can exceed the normal range as the patient recovers from the injury unless consumptional processes persist. Prothrombin time, PTT and platelet count may remain abnormal for five to seven days even though the victim appears to be recovering from the biting injury. A fresh whole blood transfusion or component transfusion is indicated if the coagulation studies and clinical findings are suggestive of bleeding diathesis (see Figure 7).

Management of the Surgical Wound

Immediate closure of the surgical wound primarily or using a partial thickness skin graft may be carried out if the wound is limited and satisfactory hemostasis is achieved. On the other hand, a delayed wound closure is recommended if:



Figure 4. Necrosis of skin edges can occur following the removal of envenomated tissues. The area required further debridement. The wound was later covered with a partial thickness skin graft.



Figure 5-A. A 24-year-old man was bitten in the popliteal area by a five-foot Western diamondback rattlesnake one hour before he was brought to the Emergency Room. The extent of envenomation became clearly delineated with the overlying skin removed.



Figure 5-B. The artery, nerve, vein, and musculatures became exposed with the removal of overlying envenomated soft tissue. The resultant wound was immediately covered with the soleus muscle mobilized as a muscle flap. The muscle surface was covered with a partial thickness skin graft.

- (1) the circulatory status of the wound margin is not assured,
- (2) possibility of further tissue necrosis exists,
- (3) and the general condition of patient is unstable.

The method of secondary wound closure may vary depending upon the magnitude of tissue destruction. Mobilization of a skin or muscle flap from the adjacent area may become necessary to cover tendons, nerves, and bones.

Discussion

Although approximately 7000 people each year require medical attention because of poisonous snakebite in this country,¹ the approach to patient management remains controversial.^{2,3} Lack of full understanding concerning the components and pathophysiological effects of injected venom along with the fact that an inconsistent amount of venom is injected with each bite probably hinders efforts to



Figure 5-C. The appearance of the wound 10 days following the accident.

establish a definitive regimen of therapy.

The use of antivenin is considered to be the mainstay of medical treatment to alleviate systemic effects of injected venom. Since the clinical findings of swelling, ecchymosis and pain in the area of bite and functional alterations in the neurosensory and the cardiopulmonary system are commonly used to determine the dose of antiserum required, the decision of dose requirement may be clouded by difficulty in ascertaining the exact amount of venom injected. Allergic reactions to the horse serum, furthermore, may preclude the use of antiserum therapy. Our past experience further indicates that a large number of patients may suffer bodily deformities because of tissue damage from the venom injected.⁴ Despite voluminous experimental data available in the literature regarding the biochemical and pathophysiological effects of venom, little is known about the pathogenesis of tissue destruction following snakebite.

Several enzymatic fractions of snake venom have

been isolated and their physiologic activities studied in detail. They have been shown to directly attack the endothelial lining of the vessels within minutes after the injection. The destructive process includes the vessel wall and, with time, extravasation of blood and blood components ensues due to disruption of the vascular continuity.⁵ The extent of extravasation is aggravated by coagulation derangement initiated by the thrombin-like activity of venom and the tissue thromboplastin released as a result of the tissue destruction.⁶ Persistent interstitial hemorrhaging and tissue damage account for the usual clinical findings of ecchymosis and swelling. These findings, however, may or may not be indicative of severe envenomation or tissue damage, since the magnitude of tissue damage usually remains poorly defined for three to four days. In fact, the process of tissue necrosis is seldom recognized unless necrosis of the overlying skin occurs, even though interstitial hemorrhaging and inflammatory cell infiltration may suggest impending demise of the tissue involved.



Figure 6. A 6-year-old girl, bitten by a Western diamondback rattlesnake of unknown size, was seen in the Emergency Room five hours following the injury. Surgical decompression of the tissue compartments became necessary because tissue swelling further compromised the blood supply to the lower extremity.

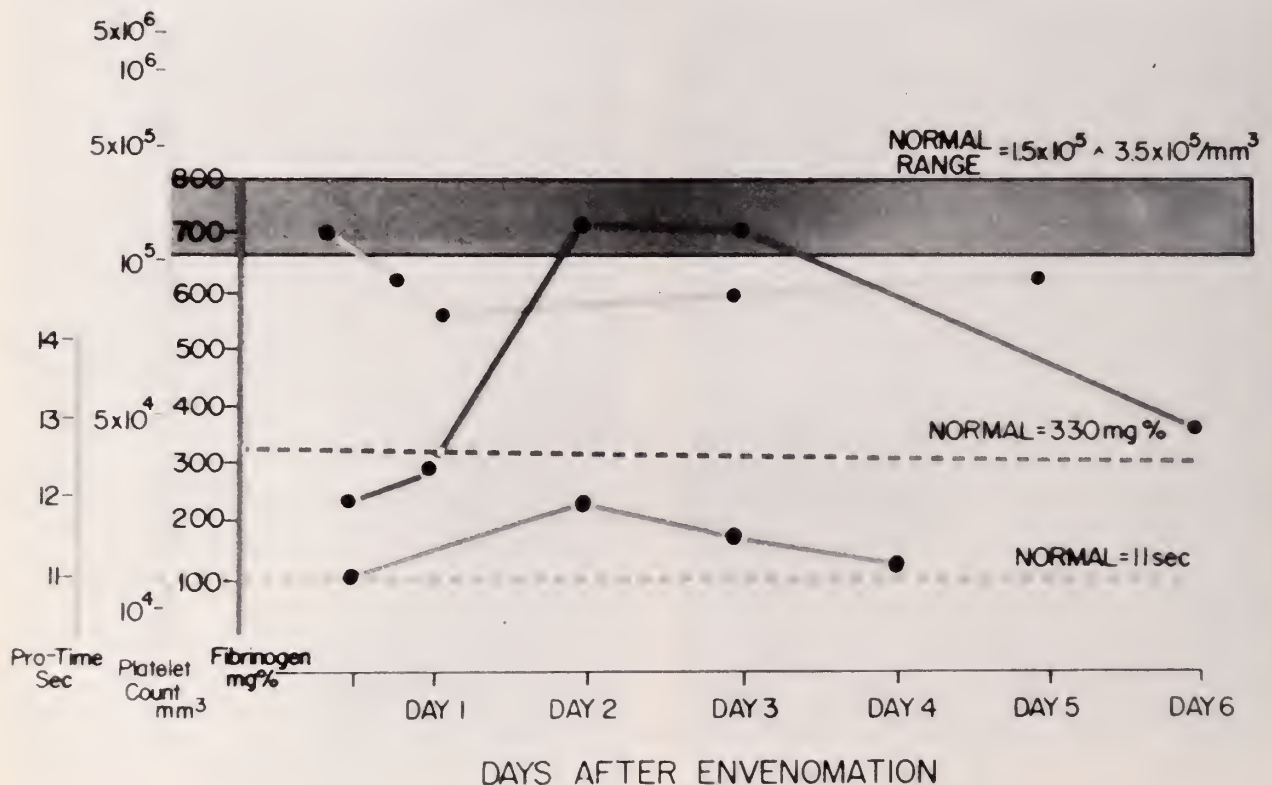


Figure 7. Typical changes noted in coagulation studies for patients with poisonous snakebite injury. All parameters may remain during the first 24 hours following the bite.

Assessing the exact intent of envenomation and the magnitude of tissue damage in clinical practice is a difficult task. A direct visual inspection of the interstitial layer is necessary in order to establish a definitive diagnosis of snakebite since the hemorrhagic change occurring in the subcutaneous tissue is the cardinal sign of venom injection. Further expansion of the hemorrhagic changes usually results if the affected tissue is left intact. An opening of the skin over the area of bite is, therefore, necessary in most instances. The use of excisional therapy, in this regard, provides not only the opportunity to assess the exact magnitude of envenomation but also provides a means of removing injected toxin, thus minimizing the consequence of systemic absorption, tissue necrosis and infection.

At the University of Texas Medical Branch Hospitals, our approach in managing patients bitten by poisonous snakes was modified in 1970. The use of excisional therapy has been the primary method of patient management for the past decade. With an early surgical removal of tissue containing venom, the need for antivenin therapy was essentially eliminated.⁷ The incidence of bodily deformity, furthermore, has decreased from an average of 20% encountered among those treated medically, ie, antivenin administered either singularly or in combination with steroids, cryotherapy or antihistaminics, to less than 1%.⁸

The undeniable consequence associated with excisional therapy includes unsightly appearance of scars, functional interference due to scarring of bodily parts, scar contracture caused by an improper incision and/or further necrosis of tissues secondary to incomplete removal of envenomated tissues. A full understanding of basic surgical principles in wound management and anatomical details of involved bodily parts is, therefore, essential in the surgical management.

Summary

Although antivenin has been the mainstay of medical treatment for poisonous snakebite, this mode of therapy may be limited because of the possibility of an allergic reaction to the protein moiety of the antiserum. Furthermore, functional impediment due to tissue necrosis is the major factor responsible for the morbidity encountered. Early surgical removal of envenomated tissues from the site of envenomation was advocated in 1970 and has been used as the primary mode of therapy at the University of Texas Medical Branch Hospitals in Galveston for the past fifteen years. We have found that both the need for antivenin therapy and bodily disfigurement has been curtailed with this method. ★★★

326 Market Street (77550)

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The President Speaking

Who Should Be Involved

W. JOSEPH BURNETT, M.D.
Oxford, Mississippi

Should you as a Mississippi physician be involved in your local society, at the state level or other areas of service in organized medicine? Should you be actively supportive and encouraging to those who do attempt to serve all of us? Are you informed about the issues involving our profession at the state and national level? Surely you care!! At leadership meetings I have heard the question "Which is the biggest problem in your local societies — *Ignorance* or *Apathy*?" The rather humorous result of such a survey is generally "We don't know and we don't care!" Unfortunately this response may be offered humorously in order to avoid frustration and disgust.

As I visited several of our societies around the state I have been reminded again that a great deal of apathy exists in some of our membership. However, some of our societies are very involved and active in the work and support of organized medicine. To these groups, who traditionally provide a great deal of our leadership, we are all indebted and we should more actively support them. In my address after installation as your president I did a little take-off on President Kennedy's proposal and challenged delegates to "Think not what MSMA can do for you but what you can do for MSMA!"

Should you be more involved? Should you be more supportive and encouraging to those who actively work for all of us? Do you ever let them know your *positive* feelings concerning their work?

I want to commend several of our societies and their members for their personal sacrifices and dedicated service to all of us. Believe me, their efforts on our behalf have made MSMA an exemplary organization for many throughout the nation!!

EDITORIALS

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

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Stop the World . . . I Want Off!

All of us have been bombarded recently by tort reform propaganda. The Senate passed some; the House didn't pass some; this measure was held up by that committee; that measure got out of this committee but was defeated; talk to this legislator; and on and on. So goes this world of ours every year when the legislature cranks up.

The liability insurance companies point their accusing finger at those sorry doctors; the doctors point theirs toward those greedy lawyers; and the lawyers point their finger at the insurance companies . . . and so the world turns.

Surely our Mississippi State Medical Association has effective leadership, excellent legal counsel, a good legislative committee, and a good doctor/lawyer committee. Just as surely we physicians answer the call of duty when we are asked to call, meet, greet, and explain our position to our legislators.

Some of our closest and best friends are lawyers, but by profession they are infinitely better at preparing and presenting their case more effectively than us who spend our time treating patients. As many of us saw during this session, each legislator had a thick packet of "well documented" facts supporting the claim of the trial lawyers that the true culprit was not them but the liability insurance companies trying to rip off everyone.

Who else but those who are versed in courtroom showmanship would have thought to "stuff" the balconies on the day tort reform was to be discussed with lame, maimed and other "poor victims" who might thwart an honest discussion.

Legislative Reform

One good way to slow our topsy-turvy world down is some type of legislative reform. Seldom, if ever, has the Mississippi legislature taken a leadership role on major issues that the people of Mississippi deserve. Now, in 1987, the legislators are once again showing their "true colors" and "selfish interests" by trying to block any worthwhile legislation dealing with the outdated tort system in Mississippi.

It is common knowledge that the legislature is in the control of its lawyer members and that the lawyer members are not going to pass any laws that might affect their legal fees when the legislature is not in session and they are home practicing law.

Articles are appearing in newspapers statewide about elected officials having a "conflict of interest" if their job or their spouse's job is related to that public position. Mississippians serving on school boards have had to resign because their spouse teaches school. Looking at the "conflict of interest" in this vein, how can it not be a "conflict of interest" for practicing attorneys to be in the Mississippi legislature? Surely, any Mississippian can see that lawyers making laws, from which they make their living nine months out of the year, is a direct "conflict of interest." No lawyer in his right mind would support legislation which would reduce his legal fees, even if the law were good for the rest of the population.

As it goes now, we of the MSMA and the more than 40 other similar groups in this state who have bonded together to work for tort reform are fighting a losing battle. Maybe what we need to do first is to work toward some type of legislative reform. Perhaps a lawsuit challenging all practicing attorneys serving in the legislature as having a direct conflict of interest in that position and calling for those seats to be vacated and filled by other qualified people would be in order.

The legislature has taken on speaker Buddie Newman and Lt. Gov. Brad Dye for their own selfish reasons; so maybe, it is time that we put the responsibility on ourselves to get some questions answered and let them know what and who we want.

As the world turns . . . by this ole Doc.

JOSEPH H. JOHNSTON, M.D.
Associate Editor

Medico-Legal Brief

Separate Legal Counsel

Not infrequently, physicians ask me if they should retain legal counsel in addition to counsel furnished

MEDICO-LEGAL BRIEF / Continued

by their professional liability carrier once a complaint or claim has been filed against them. My opinion is that a physician should have an ongoing relationship with a business lawyer or a general legal practitioner for all of his legal affairs and that this lawyer should be consulted about professional liability claims even though the physician may be fully covered by insurance and represented by insurance company counsel. This does not mean that the physician's lawyer needs to be directly involved in the professional liability action, but he can explain to the physician his obligations under the insurance policy and whether the suit should be defended.

The lawyer can inform the physician of the circumstances under which the insurance carrier is entitled to his cooperation and when the carrier may be asking him to act in a manner that is unfair to the physician or is otherwise improper.

Separate legal counsel is also recommended in cases in which the prayer for damages exceeds the policy limits of the physician's coverage. Separate legal counsel can assist the physician in deciding whether settlement within policy limits could be achieved, whether trial might risk a jury award far in excess of the policy limits and how the physician might best prepare for defense.

Another situation in which a physician should retain separate legal counsel would be one where

there are several defendants and the physician is not the one primarily responsible for the alleged injury. Separate legal counsel could assure that any settlement being negotiated does not require contribution if the physician did not, in fact, contribute to the cause of action. For example, it is not uncommon for the same carrier to write the coverage for an anesthesiologist, a surgeon and an assistant surgeon who are all named as defendants in the same suit. Under these circumstances, separate legal counsel may be able to prevent a settlement that is divided equally among the three physicians insureds even though one is primarily responsible for the alleged injury. The temptation for the carrier to involve all three defendants even though the facts implicate only one would be a case in which the principal defendant does not carry high enough limits of coverage to meet the demand and the carrier wants to tack part of the cost on the other two who have higher limits.

In the event that a professional liability suit alleges not only negligence in the provision of medical services but in addition alleges immoral conduct, the physician should then retain his own legal counsel. The insurance carrier may not be motivated to seek a settlement if allegations of improper conduct are made and the carrier has an exclusion for any damages awarded for such conduct. The carrier would be responsible for any award for professional

(continued on page 81)



**Thank
You**

Doctor,

Have you ever looked for a different way to say "Thank You," "Congratulations," or "Get Well Soon"?

All of these messages are available, along with memorial tributes, in greeting cards from the MSMA Auxiliary. Each card signifies your donation to the AMA-ERF in the name of a friend or colleague.

For information about AMA-ERF greeting cards for year-round use, contact a member of your local MSMA Auxiliary, or Sara Ann Owen, 604 Woodbine Lane, Hattiesburg, MS 39401; telephone 264-8516.

MEDICAL ORGANIZATION

Dr. Weems Receives Award From National Kidney Foundation

MSMA president-elect Dr. Lamar Weems, professor of surgery and director of the urology division at the University of Mississippi Medical Center, has received the Distinguished Service Award from the National Kidney Foundation.



*Lamar Weems,
M.D.*

He was presented the award at the foundation's annual meeting in Washington, D.C., for "noteworthy contributions on behalf of the programs of the National Kidney Foundation."

Dr. Weems has served on the foundation's advisory board, and as secretary and chairman of its Urology Council. He is on the board of trustees of the Mississippi Kidney Foundation and has been chairman of its medical advisory board.

Dr. Weems is president of the American Association of Clinical Urologists and is a past president of the Southeastern Section of the American Urological Association. In addition to being president-elect of the Mississippi State Medical Association, he also serves as a delegate to the American Medical Association. In 1981 he received the association's Robins Award for Community Service.

In addition to his work with professional organizations, Dr. Weems has served as president of the executive committee of the Magnolia School for the Deaf.

He has been visiting professor in more than 10 medical schools in the United States and is the author of 17 articles for professional journals.

Dr. Weems is a graduate of Forest High School, East Central Junior College and Millsaps College. He earned the M.D. at Baylor University and interned at Confederate Memorial Medical Center in Shreveport, Louisiana. He did residency training at UMC and Massachusetts General Hospital in Boston.

MSMA Headquarters Building Nears Completion

MSMA's new headquarters building should be ready for occupancy by the end of May. Construction workers are now completing some of the interior finishing work, including laying of carpet in some areas. Yet to be completed is the renovation of the existing headquarters building, which adjoins the new four-story structure.

In addition to MSMA offices, the 38,308-square-foot building will house the Mississippi Foundation for Medical Care and the Medical Assurance Company of Mississippi.

Architects for the project are Cooke, Douglas and Farr of Jackson. Jones and Thompson Construction, Inc. is the builder.



Cranes and scaffolding are visible in this photo of MSMA's new headquarters building on Riverside Drive. The structure should be ready for occupancy by the end of May. (Photo shows the building as it appears from Pine Street, just east of the site.)

119th Annual Session, June 3-7, Biloxi

Construction Progress

At right, a construction worker stands on the roof of the MSMA headquarters building. In foreground is the rear of the existing building, which adjoins the new structure.

Below, bands of brick and concrete adorn the front of the new building.



Kilpatrick to Address 119th Annual Session



James J. Kilpatrick, noted columnist, author and lecturer, will be featured speaker at the annual MSMA/MSMA Auxiliary Membership Banquet on Friday, June 5 in Biloxi.

Kilpatrick, whose column appears in 530 American newspapers, is the nation's most widely syndicated political columnist. He is contributor to the *National Review*, and for eleven years has been essayist for the monthly *Nation's Business*. For 15 years he has been a panelist on "Agronsky & Company," a Washington TV program of political discussion. For nine years he appeared on "60 Minutes" as conservative debater on "Point-Counterpoint."

He is the author of nine books, the most recent being *The Ear is Human*, a book on language published in September 1985.

UMC Establishes New Departments, Names Chairmen

Two new departments have been established in the School of Medicine at the University of Mississippi Medical Center, effective January 1.

The department of Surgery Divisions of Orthopedics and Ophthalmology were elevated to department status by the Board of Trustees of State Institutions of Higher Learning at its December meeting. Dr. Norman C. Nelson, UMC vice chan-

cellor for health affairs and medical school dean, made the recommendations to the Board "in response to commendable growth and acknowledge excellence in the divisions, and to encourage their further development."

"This action reflects national trends in medical education," Dr. Nelson said. "The majority of United States medical schools now recognize the conceptual and functional separateness of these disciplines by operating them as individual departments."

Dr. James L. Hughes who served as chief of the orthopedics division was named professor of orthopedics and chairman of the department; and Dr. Samuel B. Johnson ophthalmology division chief, was named professor of ophthalmology and chairman of the department.

Dr. Hughes, a member of the School of Medicine faculty since 1977, holds the B.S. from Mississippi College and the M.D. from Bowman Gray School of Medicine. He interned and took his general residency at Roosevelt Hospital in New York City, and completed a residency in orthopedic surgery at the Johns Hopkins Hospital in Baltimore, followed by fellowships at Bern, Basel and Davos, Switzerland. He was assistant professor of orthopedic surgery at the Johns Hopkins University School of Medicine from 1971-1976 and chief of orthopedic surgery at Loch Raven Veterans Administration Hospital in Maryland from 1973-1976. He was chief of the amputee and fracture services at the Methodist Rehabilitation Center before coming to UMC.

Dr. Hughes is a fellow of the American College of Surgeons and member of the American Academy of Orthopedic Surgeons, Association of Orthopedic Chairmen, Mid-America Orthopedic Society, Orthopedic Research Society, Society for Biomaterials, Christian Medical Foundation International, Inc., Mississippi State Medical Association, Mississippi Orthopedic Society, Southern Medical Association, and Omicron Delta Kappa and Sigma Xi honorary fraternities.

Dr. Johnson, a member of the Medical Center faculty since 1955, earned the B.S. cum laude at West Texas State College and the M.D. at Tulane University, followed by a diploma in ophthalmology at the Tulane Graduate School of Medicine. He interned at Knoxville General Hospital and took his residency at the New Orleans EENT Hospital, where he was chief resident in ophthalmology. He has served as chief of the EENT service at the U.S. Army Hospital at Fort Sill, Oklahoma, and at the U.S. Naval Hospital at Quantico, Virginia. Dr. Johnson is a member and past president of the James

H. Allen Residents Society, Mississippi Ear, Nose and Throat Association, Central Medical Society of Mississippi, Louisiana-Mississippi Ophthalmological and Otolaryngological Society, International Association of Secretaries of Ophthalmological and Otolaryngological Societies, Flying Physicians Association Mississippi Chapter; a member of the National Society for the Prevention of Blindness, Mississippi State Medical Association, Association of University Professors of Ophthalmology, and the Sigma Xi Research Society. He also is trustee for the Mississippi Schools for the Deaf and Blind, Mississippi Rehabilitation Center for the Blind, and medical director for the Mississippi Lions Club Eye Bank.

UMC Names New Faculty

The University of Mississippi Medical Center has named five as new faculty in the Schools of Medicine, Health Related Professions and centerwide for the current academic session.

Dr. Norman C. Nelson, UMC vice chancellor for health affairs, announced the appointments following approval by the Board of Trustees of State Institutions of Higher Learning.

Appointed in the School of Medicine were Dr. Donald E. Butkus, associate professor of medicine, Dr. Sandor Feldman, professor of pediatrics, and Dr. Tribeni N. Srivastava, associate professor of medicine.

Dr. Thomas A. Wicks was named assistant professor of respiratory therapy and chairman of the department in the health related professions school.

Centerwide, Dr. Carol A. Caperelli will join the faculty as associate professor of biochemistry.

Dr. Butkus, who was director of medicine at Walter Reed Army Institute of Research in Washington, D.C., associate professor of medicine for the Uniformed Services University of the Health Sciences and clinical associate professor of medicine at Georgetown University, earned the B.A. in 1956 at Cornell University and the M.D. in 1960 at Albany Medical College of Union University.

He did his internship at Brooke General Hospital and a residency at Madigan General Hospital, followed by a fellowship at the University of Colorado Medical Center, where he later held faculty appointments as instructor, then clinical assistant professor of medicine. A colonel in the U.S. Army Medical Corps, he has served as chief of nephrology at the Fitzsimmons Army Medical Center, Walter

Reed Army Medical Center, and the Walter Reed Army Institute of Research, and was nephrology coordinator for the Uniformed Services University of the Health Sciences. He also has been a consultant in nephrology for the Department of the Army Surgeon General.

Dr. Feldman, who was associate professor of pediatrics at the University of Tennessee Center for the Health Sciences, earned the B.A. in 1963 at New York University and the M.D. in 1967 at the University of Louisville School of Medicine. He did his internship at Downstate University Kings County Medical Center and residencies at Louisville General Hospital and the Wadsworth Veterans Administration Hospital, followed by a traineeship at St. Jude Children's Research Hospital. He has held positions at St. Jude as acting chief and consultant for infectious disease services, director of general pediatric services, and associate member of infectious diseases. He also served as assistant medical director, then director of pediatrics and infectious diseases for the Memphis and Shelby County Health Department. Dr. Feldman had been a member of the UT faculty since 1974.

Dr. Srivastava earned the B.S. in 1956 at the University of Allahabad and the M.D. in 1962 at Vikram University. He did his internships at Mauland Azad Medical College, Irwin Hospital and Flower Hospital and a residency at the University of Cincinnati Medical School, followed by a fellowship at the University of Kentucky. He was assistant professor of medicine at the University of Louisville School of Medicine from 1972-1978, then accepted a position as associate professor of medicine at Hahnemann Medical College, which he held until his UMC appointment.

Dr. Wicks received the B.S. in 1973 from Missouri Southern State University and in 1977 from the University of Missouri, where he earned the master's in education in 1978, the Ed.S. in 1982 and the Ph.D. in 1985. He was staff respiratory therapist and supervisor at the University of Missouri from 1974-1976, and member of the faculty since 1979. He also was a clinical instructor in respiratory therapy at the Harry S. Truman Veteran's Administration Hospital since 1976.

Dr. Caperelli holds the Ph.D. from Johns Hopkins University. She completed her postdoctoral fellowships at Pennsylvania State University, where she was a Damon Runyon-Walter Winchell Cancer Fund fellow. She was assistant professor of chemistry at New York University from 1979-1985, and has been a clinical member of Fox Chase Cancer Center in Philadelphia, Pennsylvania since 1986.

NEW MEMBERS

ALLEN, ROBERT F., Meridian. Born Butler, AL, July 2, 1955; M.D., University of South Alabama School of Medicine, Mobile, 1981; interned one year, Atlanta; neurology residency, University of South Alabama, Mobile, 1982-84; and University of Alabama, Birmingham, 1984-85; clinical neurophysiology fellowship, University Hospital, Birmingham, 1985-86; elected by East Mississippi Medical Society.

BATTLES, CAROLINE, Gulfport. Born Amite, LA, March 2, 1955; M.D., Louisiana State University Medical Center, New Orleans, 1983; interned and family practice residency, Long Memorial Hospital, Baton Rouge, 1983-86; elected by Coast Counties Medical Society.

CAMPBELL, TOMMY J., Clarksdale. Born Ruleville, MS, Jan. 31, 1958; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and internal medicine residency, Baptist Memorial Hospital, Memphis, 1983-86; elected by Clarksdale & Six Counties Medical Society.

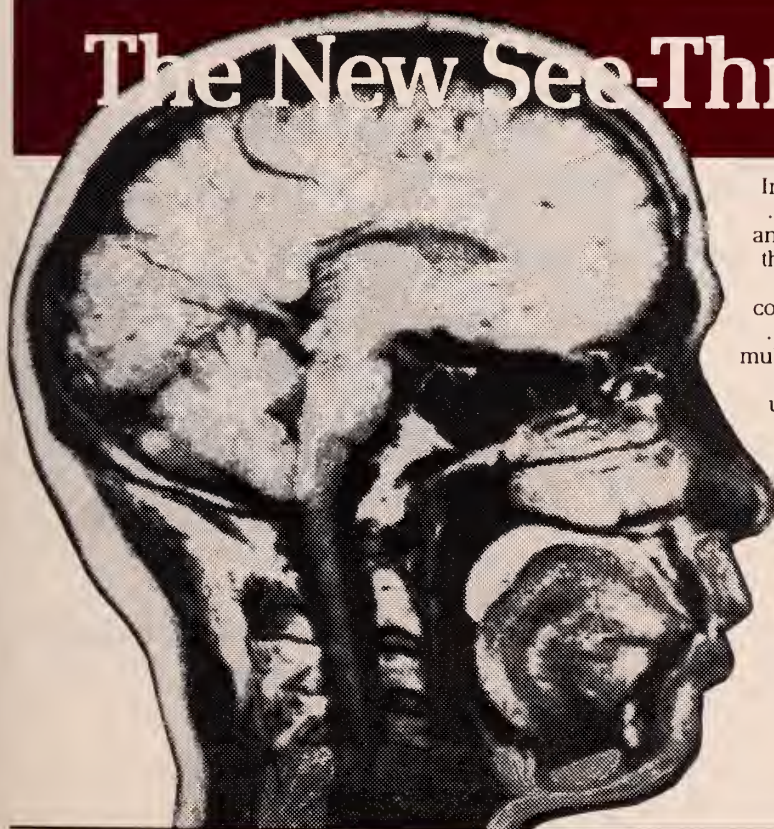
CONNELL, ELIZABETH DAY, Meridian. Born Johnson City, NY, Oct. 19, 1952; M.D., Suny Upstate College of Medicine, Syracuse, NY, 1981; interned and psychiatry residency, The Institute of Living, Hartford, Connecticut, 1981-1985; elected by East Mississippi Medical Society.

CROWE, LAURIE, Brandon. Born Kosciusko, MS, Nov. 1, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and internal medicine residency, same 1982-1985; elected by Central Medical Society.

DAUTERIVE, ALTON H., Gulfport. Born New Iberia, LA, Oct. 12, 1954; M.D., Tulane University School of Medicine, Baton Rouge, 1980; interned and general surgery, Louisiana State University Medical Center, 1980-83; Maryland Institute of Emergency Medical Services Systems 1983-84; LSU Medical Center, 1984-85; residency, peripheral vascular surgery, 1985-86; elected by Coast Counties Medical Society.

DOWBAK, JOHN M., Corinth. Born New York City, Sept. 27, 1952; M.D., New York University Medical School, NYC, 1978; interned University of California, one year; orthopedic surgery residency, University of South Carolina, 1981-84 and Univer-

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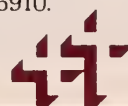
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What's more, since Magnetic Resonance Imaging uses no Xrays, no injections, and in fact does not even touch the patient's body, there is no known risk to the patient.

St. Dominic-Jackson Memorial Hospital now makes this technologically advanced procedure available to your patients. Skillfully directed by radiologists specially trained in the M.R.I. procedure, the staff at St. Dominic's Imaging Center is eager to work with you in offering this innovative procedure to your patients in the same careful and caring manner in which St. Dominic's has served the people of Mississippi for over 40 years.

To learn more about the M.R.I. procedure call St. Dominic at 364-6910.



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Jackson, Mississippi

NEW MEMBERS / Continued

sity of West Virginia, 1979-81; elected by Northeast Mississippi Medical Society.

ECKMAN, WALTER W., Tupelo. Born Oct. 3, 1943; M.D., University of Pennsylvania School of Medicine, Philadelphia, 1968; interned, University of Pennsylvania Hospital, Philadelphia, one year; residency in neurology, same, 1979-80; residency in neurosurgery, University of Western Ontario, London, Ontario, Canada, 1973-75; neurosurgery residency, University of California, Irvine, June-December 1985; elected by Northeast Mississippi Medical Society.

HICKS, JOHN B., III, Meridian. Born Laurel, MS, Oct. 20, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and internal medicine residency, University Medical Center, Jackson, MS, 1981-84; cardiology fellowship, same, 1984-86; elected by East Mississippi Medical Society.

MAYO, WILLIAM S., D.O., Greenville. Born Ruleville, MS, May 8, 1954; D.O., University of Health

Sciences, Kansas City, MO, 1981; interned and ophthalmology residency, University Medical Center, Jackson, 1981-85; elected by Delta Medical Society.

SHARP, CLINTON H., III, Gulfport. Born Amite, LA, Aug. 26, 1956; M.D., Louisiana State University Medical Center, New Orleans, 1982; interned and family practice residency, Long Memorial Hospital, Baton Rouge, 1982-85; elected by Coast Counties Medical Society.

SLIPMAN, CURTIS WAYNE, Jackson. Born Pittsburg, OK, Oct. 10, 1958; M.D., Baylor College of Medicine, 1983; interned and physical medicine and rehabilitation residency, Columbia Presbyterian Medical Center, New York, 1981-86; elected by Central Medical Society.

TALKINGTON, JAMES, M., Jackson. Born Natchez, MS, July 17, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1960; interned, one year, University Medical Center, Jackson, orthopedic surgery residency, Jacksonville, FL, 1981-85; sports medicine fellowship, University of Chicago, 1985-86; elected by Central Medical Society.

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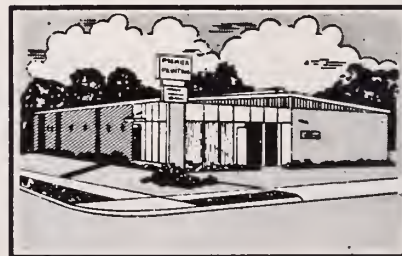
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ZANTAC® 150 h.s.

ranitidine HCl/Glaxo 150 mg tablets

EFFECTIVE MAINTENANCE THERAPY

for healed duodenal ulcer patients

CONFIRMED

In two randomized, double-blind, and well-controlled clinical trials, ZANTAC 150 mg h.s. significantly superior to cimetidine 400 mg h.s. for maintenance therapy in healed duodenal ulcers.

Percent of patients with observed duodenal ulcer recurrence

		0-4 months	0-8 months	0-12 months	No. patients
USA ¹	ranitidine 150 mg h.s.	9%	14%*	16%†	60
	cimetidine 400 mg h.s.	23%	34%	43%	66
UK, Ireland, Australia ²	ranitidine 150 mg h.s.	8%‡	14%‡	23%‡	243
	cimetidine 400 mg h.s.	21%	34%	37%	241

*p=0.02

†p=0.01

‡p<0.004

%=life-table estimates

All patients were permitted prn antacids for relief of pain.

These two trials used the currently recommended dosing regimen of cimetidine (400 mg h.s.) and ranitidine (150 mg h.s.). A comparison of other dosing regimens has not been studied.

The studied dosing regimens are not equivalent with respect to the degree and duration of acid suppression or suppression of nocturnal acid.

The superiority of ranitidine over cimetidine in these trials indicates that the dosing regimen currently recommended for cimetidine is less likely to be as successful in maintenance therapy.

Convenient once-a-night dose with a
low incidence of side effects³

Headache, sometimes severe, seems to be related to ranitidine administration. Other side effects have been reported; for a complete listing, see the ADVERSE REACTIONS section in the Brief Summary.

No significant interference with the hepatic cytochrome
P-450 enzyme system at recommended doses

ZANTAC 150 mg has no significant drug interactions with theophylline, phenytoin, or warfarin. The bioavailability of certain medications whose absorption is dependent on a low gastric pH may be altered when ZANTAC or other medications that decrease gastric acidity are administered.

Zantac[®] 150
ranitidine HCl/Glaxo 150 mg tablets

One tablet at bedtime
for maintenance

See next page for references and
Brief Summary of Product Information.

Glaxo /  **ROCHE**

CONFIRMED

Zantac 150

ranitidine HCl/Glaxo 150 mg tablets

*One tablet at bedtime for maintenance therapy
in healed duodenal ulcer patients*

References:

1. Silvis SE, Griffin J, Hardin R, et al: Final report on the United States multicenter trial comparing ranitidine to cimetidine as maintenance therapy following healing of duodenal ulcer. *J Clin Gastroenterol* 1985;7(6):482-487.
2. Gough KR, Korman MG, Bardhan KD, et al: Ranitidine and cimetidine in prevention of duodenal ulcer relapse: A double-blind, randomised, multicentre, comparative trial. *Lancet* 1984;ii:659-662.
3. Data available on request, Glaxo Inc.

ZANTAC[®] 150 Tablets
(ranitidine hydrochloride)
ZANTAC[®] 300 Tablets
(ranitidine hydrochloride)

BRIEF SUMMARY OF PRODUCT INFORMATION

The following is a brief summary only. Before prescribing, see complete prescribing information in ZANTAC[®] product labeling.

INDICATIONS AND USAGE: ZANTAC[®] is indicated in:

1. Short-term treatment of **active duodenal ulcer**. Most patients heal within four weeks.
2. **Maintenance therapy** for duodenal ulcer patients at reduced dosage after healing of acute ulcers.
3. The treatment of **pathological hypersecretory conditions** (eg, Zollinger-Ellison syndrome and systemic mastocytosis).
4. Short-term treatment of **active, benign gastric ulcer**. Most patients heal within six weeks and the usefulness of further treatment has not been demonstrated.
5. Treatment of **gastroesophageal reflux disease (GERD)**. Symptomatic relief commonly occurs within one or two weeks after starting therapy and is maintained throughout a six-week course of therapy.

In active duodenal ulcer; active, benign gastric ulcer; hypersecretory states; and GERD, concomitant antacids should be given as needed for relief of pain.

CONTRAINDICATIONS: ZANTAC[®] is contraindicated for patients known to have hypersensitivity to the drug.

PRECAUTIONS: Symptomatic response to ZANTAC[®] therapy does not preclude the presence of gastric malignancy.

Since ZANTAC is excreted primarily by the kidney, dosage should be adjusted in patients with impaired renal function (see **DOSE AND ADMINISTRATION**). Caution should be observed in patients with hepatic dysfunction since ZANTAC is metabolized in the liver.

False positive tests for urine protein with Multistix[®] may occur during ZANTAC therapy, and therefore testing with sulfosalicylic acid is recommended.

Although recommended doses of ZANTAC do not inhibit the action of cytochrome P-450 enzymes in the liver, there have been isolated reports of drug interactions which suggest that ZANTAC may affect the bioavailability of certain drugs by some mechanism as yet unidentified (eg, a pH-dependent effect on absorption or a change in volume of distribution).

Lack of experience to date precludes recommending ZANTAC for use in children or pregnant patients. Since ZANTAC is secreted in human milk, caution should be exercised when administered to a nursing mother.

ADVERSE REACTIONS: Headache, sometimes severe, seems to be related to ZANTAC[®] administration. Constipation, diarrhea, nausea/vomiting, and abdominal discomfort/pain have been reported. There have been rare reports of malaise, dizziness, somnolence, insomnia, vertigo, tachycardia, bradycardia, premature ventricular beats, and arthralgias. Rare cases of reversible mental confusion, agitation, depression, and hallucinations have been reported, predominantly in severely ill elderly patients.

In normal volunteers, SGPT values were increased to at least

twice the pretreatment levels in 6 of 12 subjects receiving 100 mg qid IV for seven days, and in 4 of 24 subjects receiving 50 mg qid for five days. With oral administration there have been occasional reports of reversible hepatitis, hepatocellular or hepatocanalicular or mixed, with or without jaundice.

There have been rare reports of reversible leukopenia, granulocytopenia, thrombocytopenia, and pancytopenia.

Although controlled studies have shown no antiandrogenic activity, occasional cases of gynecomastia, impotence, and loss of libido have been reported in male patients receiving ZANTAC, but the incidence did not differ from that in the general population.

Incidents of rash, including rare cases suggestive of mild erythema multiforme, and, rarely, alopecia, have been reported, as well as rare cases of hypersensitivity reactions (eg, bronchospasm, fever, rash, eosinophilia) and small increases in serum creatinine.

OVERDOSSAGE: Information concerning possible overdosage and its treatment appears in the full prescribing information.

DOSE AND ADMINISTRATION Active Duodenal Ulcer: The current recommended adult oral dosage is 150 mg twice daily. An alternate dosage of 300 mg once daily at bedtime can be used for patients in whom dosing convenience is important. The advantages of one treatment regimen compared to the other in a particular patient population have yet to be demonstrated.

Maintenance Therapy: The current recommended adult oral dosage is 150 mg at bedtime.

Pathological Hypersecretory Conditions (such as Zollinger-Ellison Syndrome): The current recommended adult oral dosage is 150 mg twice a day. In some patients it may be necessary to administer ZANTAC 150-mg doses more frequently. Doses should be adjusted to individual patient needs, and should continue as long as clinically indicated. Doses up to 6 g/day have been employed in patients with severe disease.

Benign Gastric Ulcer: The current recommended adult oral dosage is 150 mg twice a day.

GERD: The current recommended adult oral dosage is 150 mg twice a day.

Dosage Adjustment for Patients with Impaired Renal Function: On the basis of experience with a group of subjects with severely impaired renal function treated with ZANTAC, the recommended dosage in patients with a creatinine clearance less than 50 ml/min is 150 mg every 24 hours. Should the patient's condition require, the frequency of dosing may be increased to every 12 hours or even further with caution. Hemodialysis reduces the level of circulating ranitidine. Ideally, the dosage schedule should be adjusted so that the timing of a scheduled dose coincides with the end of hemodialysis.

HOW SUPPLIED: ZANTAC[®] 300 Tablets (ranitidine hydrochloride equivalent to 300 mg of ranitidine) are yellow, capsule-shaped tablets embossed with "ZANTAC 300" on one side and "Glaxo" on the other. They are available in bottles of 30 (NDC 0173-0393-40) and unit dose packs of 100 tablets (NDC 0173-0393-47).

ZANTAC[®] 150 Tablets (ranitidine hydrochloride equivalent to 150 mg of ranitidine) are white tablets embossed with "ZANTAC 150" on one side and "Glaxo" on the other. They are available in bottles of 60 tablets (NDC 0173-0344-42) and unit dose packs of 100 tablets (NDC 0173-0344-47).

Store between 15° and 30 C (59° and 86° F) in a dry place. Protect from light. Replace cap securely after each opening.

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RECOLLECTIONS

Twenty years ago, JOURNAL MSMA described a statewide series of eight regional information meetings on Title XIX of Public Law 89-97. The MSMA Board of Trustees authorized the regional meetings to familiarize physicians with Title XIX, the sweeping reorganization of medical care for the needy. The law encompassed those under Old Age Assistance (Title I), Aid to Families with Dependent Children (Title IV), Aid to the Blind (Title X), and Aid to the Permanently and Totally Disabled (Title XIV).

An accompanying editorial described a crisis in nursing home care under Title XIX, which guaranteed benefits that at that time "could not be delivered." Less than a third of the nursing home beds in the U. S. were approved for Medicare, leaving 73 million days of nursing home care available against a commitment of 1.9 billion days.

The Medico-Legal Brief

(continued from page 74)

negligence, but the carrier's counsel may take the position that the injury was caused primarily by the sexual relations.

Separate legal counsel can also be helpful where the carrier proposes a settlement purely on the basis of nuisance value even though the physician does not believe that he was negligent or should be responsible for the alleged injury. Separate legal counsel can advise the physician defendant whether the insurance carrier is justified in settling the case on the terms proposed.

A final example is where the physician defendant believes that counsel furnished by the carrier is inadequate and the carrier refuses to employ different counsel. A classic case would be where the physician defendant's partner had been defended by the counsel selected by the carrier and had found the lawyer inept or dilatory in handling preparation for trial with an adverse outcome.

An investment in legal fees for separate legal counsel may provide a reward for the physician defendant. Even though the insurance carrier is obligated under the policy to provide legal representation to protect the physician's interests, there are situations in which their respective interests may conflict.

PERSONALS

ORLANDO ANDY of UMC presented a paper at the American Medical EEG Association meeting in Chicago.

RALPH BROCK of McComb recently was guest speaker at the McComb Rotary Club.

MARK BROOKS of Brandon has been elected chief of staff at Rankin General Hospital. Other officers are GEORGE SCHIMMEL, vice chief; DON GIBSON, secretary-treasurer; CURTIS ROBERTS, chief of medicine; and C. RON CANNON, chief of surgery.

WALLACE E. CALHOUN of Moss Point announces his retirement from the practice of medicine.

CHING CHEN of UMC spoke at a meeting of a physicians' group in Montgomery, Alabama.

The board of directors of the Southeast Mississippi Air Ambulance District paid tribute to RICHARD CLARK of Hattiesburg for his 15 years of service by having his initials emblazoned on the helicopter, to read "RC7," the number representing the district.

Mississippi physicians certified by the American Medical Society on Alcoholism and Other Drug Dependencies are: WILLIAM C. DUDLEY of Meridian; JACK L. HAMMOND of Jackson; RAYMOND KIMBLE of Hattiesburg; PATRICK McLAIN of Jackson; and DOYLE P. SMITH, of Hattiesburg.

MARTIN DALTON of Jackson announces the relocation of his office for the practice of thoracic and vascular surgery and his association with Surgical Clinic Associates, 1600 North State Street.

ALAN FREELAND of UMC presented a paper at the 12th International Conference on Hoffman External Fixation in Bavaria, West Germany, and at the International Federation of Societies for Surgery of the Hand in Tokyo and Kyoto, Japan.

WILLIAM J. GIBSON and ALEXANDER J. HAICK of Jackson announce the relocation of their offices for the practice of surgery to 1421 North State Street, Suite 401.

JAMES HARDY of UMC made a presentation at the recent American College of Surgeons meeting in New Orleans and attended a meeting of the editorial board of the American Journal of Surgery.

ROBERT J. HARGIS of Jackson completed ESWL training in Wuppertal, Germany, in December.

PERSONALS / Continued

BRIGGS HOPSON of Vicksburg recently reviewed a book for the Vicksburg Book Club.

JAMES HUGHES of UMC was guest speaker for the North Carolina Orthopedic Association and the South Carolina Orthopedic Association. He attended a board meeting of the AO International Board of Trustees in Montreaux, Switzerland, and also taught an AL/ASIF course in Davos, Switzerland.

M. GLENN HUNT announces the opening of his practice for the practice of obstetrics and gynecology at 2160 South Lamar in Oxford.

MICHAEL E. JABALEY of Jackson announces the association of PETER E. GEE and PHILLIP H. NUNNERY for the practice of plastic and reconstructive surgery and surgery of the hand.

JAMES E. JOHNSON has joined the Biloxi Family Clinic for the practice of osteopathic and family medicine.

DOUGLAS C. LANIER of Gulfport announces the association of JAMES P. MARTIN for the practice of nephrology, hypertension and internal medicine.

JOHN A. MANNING has associated with McComb Children's Clinic (F. THOMAS CAREY, SHELBY SMITH and PATRICK TARPY) for the practice of pediatrics.

JAMES S. MCILWAIN of Clinton was recently named chief of staff at Hinds General Hospital. Other officers are W. L. MASON, chief-elect; ROBERT O. MAY, medical liaison officer; ROBERT SMITH, secretary-treasurer; FRANK H. HOWELL, chief of medicine; and C. JAMES LEWIS, chief of surgery. JULIAN C. HENDERSON is past chief of staff.

TOXEY MORRIS of Hattiesburg completed a course at the University of Pennsylvania School of Medicine, where he completed requirements for certification in ESWL.

DOYLE A. MORRISON of Jackson was guest speaker at a recent meeting of the Ostomy Association.

FRANCIS S. MORRISON of UMC has been named president-elect of the South Central Association of Blood Banks.

JOHN MORRISON of UMC recently spoke in Macon (Georgia), Cincinnati, San Antonio, and Atlanta. He also spoke at a meeting of the National Perinatal Association in Washington, DC.

The Orthopedic Clinic, P.A. and South Mississippi Orthopaedic Associates of Hattiesburg have merged to form South Mississippi Orthopaedic Specialists, P.A., P.O. Box 17317, Hattiesburg, MS 39404. The group includes WILLIAM GARY GILES, W. BOMBOY, RICHARD A. CONN, THOMAS DEWEY, J. STEWARD WILLIFORD, and DOUGLAS W. ROUSE, JR.

H. SIDNEY PROSSER of Hollandale has been recertified as a diplomate of the American Board of Family Practice.

E. D. REYNOLDS recently was honored by the community of Clinton with a retirement reception at the A. E. Wood Memorial Library.

HENRY J. SANDERS of McComb was featured speaker at a meeting for diabetics and other interested persons at Southwest Mississippi Regional Medical Center.

ROBERT SMITH of UMC presented a paper at the recent American College of Surgeons meeting in New Orleans



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Tylertown/Wesson

Member FDIC

EDSEL STEWART of McComb recently received an honorable mention award for one of his paintings in the inaugural Members' Exhibition of the Mississippi Watercolor Society.

ROBERT SUARES of Greenville was speaker at a recent conference at Delta Medical Center to help the blind and aged adapt to their visual impairments.

HORTON TAYLOR of Ripley received the Silver Beaver Award presented by the Boy Scouts of America for his service to the organization. He also was named Rotarian of the Year by the local Rotary Club.

DAVID THOMAS of UMC participated in the recent International Symposium on Clinical Research in San Antonio, Texas.

R. FASER TRIPLETT of Jackson was installed as president-elect of the American College of Allergists at the group's meeting in Las Vegas.

THAD F. WAITES has associated with Hattiesburg Clinic for the practice of cardiology.

LAMAR WEEMS of UMC was a panelist at a meeting of the Society of University Urologists in New Orleans.

WILLIAM B. WINSTEAD has associated with STEVEN B. FINEBURG and HARRIS G. BARRETT of Pascagoula for the practice of family medicine.

BUFORD YERGER of Jackson announces his association with the medical staff of Veterans Administration Medical Center, and his leaving the private practice of orthopaedics.

DEATHS

FERRINGTON, ELIZABETH. Born Gleiwitz, Germany, June 29, 1898. M.D., University of Frankfurt Medicine School, Frankfurt, Germany, 1930; interned, same, one year; pathology residency, Mt. Sinai Hospital, Chicago, 1937-39; died Jan. 21, 1987, age 88.

RUSH, L. V., SR., Meridian. Born Meridian, MS, Feb. 16, 1905; M.D., Tulane University School of Medicine, New Orleans, 1927; interned and surgery residency, Rush Hospital and Matty Hersee Hospital, Meridian, 1927-32; died Feb. 8, 1987, age 81.

MARCH 1987

What Every Physician's Spouse Should Know

A series of booklets on topics of special interest to medical families published by the American Medical Association Auxiliary



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BOOK REVIEW

The World of Surgery, 1945-1985: Memoirs of One Participant. Philadelphia, PA. University of Pennsylvania Press, 1986. \$34.95.

Dr. James D. Hardy by hard work, ingenuity, and the force of his personality has forged his place in the annals of the field of surgery. Although *The World of Surgery, 1945-1985: Memoirs of One Participant* includes events surrounding other great surgeons of the era, this book depicts those events as they affect the lives of the author and his family.

The preface begins the unfolding of the author's private life when he offers as one compelling reason for writing the book "... if nothing else, this book may serve to impart to my children something of their father's orientation and life experiences." For those of us fortunate enough to have trained in surgery under his leadership we discover insight into the molding of his character and personality.

Part I deals with his family, childhood development, and education in Alabama. His father was a well-to-do businessman who owned and managed a limestone quarry. He was the dominant force in the family and emphasized "discipline, fairness, honesty, the puritan ethic of hard work, and relationships with the outside world." We as residents at the University of Mississippi Medical Center were constantly made aware of the importance of these values. One can deduce from these writings his father also instilled indefatigable drive. From his mother, an extremely refined and educated lady, the drive that has so characterized Dr. Hardy's existence was further enhanced. Additionally she nurtured other attributes such as his desire for excellence, love of books and music, and sensitivity (some critics have questioned the presence of this trait, especially those he has defeated in battle within the University hierarchy).

Part II describes his years in medical school and residency as well as his experience as a U.S. Army officer. A measure of the influence of Isidor Ravdin, a former chairman of the Department of Surgery at the University of Pennsylvania and Dr. Hardy's principal mentor, is exemplified by the devotion of an entire chapter to his personal recollections of Dr. Ravdin. It is obvious Dr. Hardy's mentor instilled

in him a dedication to research which he has sustained throughout his career. One also comes to realize that Ravdin's near obsession with loyalty from subordinates made considerable impact upon Dr. Hardy.

Although Part III deals with his years in Memphis — primarily years of development and maturation, it is Part IV which is truly captivating to any reader with even a peripheral acquaintance with Dr. Hardy. He describes the formative years of the University of Mississippi Medical Center and unveils some surprising facts regarding various supporters and detractors. Discussion of this part of the book with other readers may yield a different version of events, but it is difficult to discount Dr. Hardy's description because it is frequently documented by quoting entire letters to individuals or other written word.

Organ transplantation has been a cornerstone of recognition for Dr. Hardy and the Department of Surgery and receives considerable attention. Of special interest is the description of events leading to the first heart transplant in man (using a chimpanzee heart) and the subsequent public and professional outcry, even condemnation. This subject is dealt with in a candid fashion and serves to enhance the veracity of the author.

His brief treatise on the changing practice of surgery as it relates to economics both personal and as a nation is provocative.

The book includes the author's experience in dealing with his own humanness as he describes the necessity for becoming the recipient of cardiovascular surgical procedures. Like any proud parent, he concludes with a biographical sketch of his children and their considerable accomplishments followed by a "summing up."

Having spent four years in medical school, a year of internship, and four years of general surgery under the influence of Dr. Hardy, as I read I recalled a piece of unsolicited advice he once gave. "If you have a choice between having someone like you or respect you, take respect every time." Unquestionably, this book illustrates the point. The author has never made decisions based on the anticipation of receiving affection or admiration, but in so doing has gained the immense respect of all those under the realm of his influence.

MARTIN H. McMULLAN, M.D.
Jackson, MS

120

100

80

60

40

20

0

130

110

90

70

50

30

10

In mild to moderate hypertension

**THE FIRST
ONCE DAILY**

**CALCIUM
CHANNEL
BLOCKER**

NEW
ONCE DAILY



ISOPTIN^{SR}*

(verapamil HCl/Knoll)

240 mg scored, sustained-release tablets



JAMES B.
38, black male, heavy smoker. Prescribed a diuretic by another physician last year for hypertension.

YOUR CONCERNS
Presents with "smoker's cough." Workup reveals a BP of 150/107.

A LOGICAL CHOICE FOR CONTROL OF HIS BP

ISOPTIN[®] (verapamil HCl/Knoll) because...

- Black hypertensives often have low plasma renin activity and generally do not respond favorably to beta blockers.
- Beta blockers may increase the likelihood of bronchospasm.

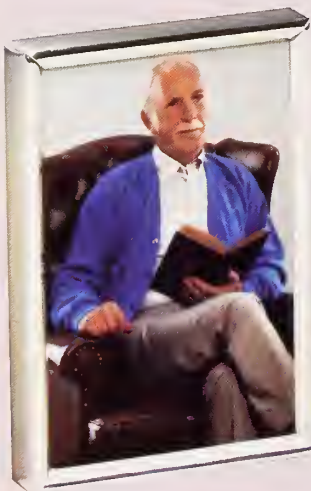
ALICE W.
65, diabetic, overweight. Her BP has elevated to 190/98.

YOUR CONCERNS
She's on daily insulin.

A LOGICAL CHOICE FOR CONTROL OF HER BP

ISOPTIN[®] (verapamil HCl/Knoll) because...

- Unlike most beta blockers and diuretics, ISOPTIN has no adverse effects on serum glucose levels.
- Unlike most beta blockers, ISOPTIN does not mask the symptoms of hypoglycemia.



THOMAS G.
70, asthmatic. In the past, BP adequately controlled with 25 mg hydrochlorothiazide daily.

YOUR CONCERNS
Today patient presents with symptoms of gout. Workup reveals high uric acid level, low serum potassium, and BP elevated to 180/98.

A LOGICAL CHOICE FOR CONTROL OF HIS BP

ISOPTIN[®] (verapamil HCl/Knoll) because...

- Unlike diuretics, ISOPTIN will not decrease serum potassium levels or elevate uric acid levels.
- Unlike beta blockers, ISOPTIN can be used safely in asthma and COPD patients.

JOHN K.
42, Annual physical uncovered diastolic BP of 102... confirmed on three successive office visits. Unresponsive to nonpharmacologic intervention.

YOUR CONCERNS
Salesman, spends many hours of his working day in car... total cholesterol level 300, HDL 35.

A LOGICAL CHOICE FOR CONTROL OF HIS BP

ISOPTIN[®] (verapamil HCl/Knoll) because...

- Unlike diuretics, ISOPTIN does not cause urinary urgency.
- Unlike either beta blockers or diuretics, ISOPTIN will not adversely affect his already seriously compromised lipid profile.
- Unlike with propranolol, fatigue and impotence are rarely reported.



**Antihypertensive therapy you
and your patients can live with**

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**In mild to moderate hypertension
THE FIRST ONCE DAILY
CALCIUM CHANNEL BLOCKER**

Brief Summary

**ISOPTIN® SR
(verapamil HCl/Knoll)
240 mg scored, sustained-release tablets**

CONTRAINDICATIONS: 1) Severe left ventricular dysfunction (see WARNINGS), 2) Hypotension (less than 90 mmHg systolic pressure) or cardiogenic shock, 3) Sick sinus syndrome or 2nd or 3rd degree AV block (except in patients with a functioning artificial ventricular pacemaker).

WARNINGS: **Heart Failure:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (see DRUG INTERACTIONS). Patients with milder ventricular dysfunction should, if possible, be controlled before verapamil treatment. Hypotension: ISOPTIN (verapamil HCl) may produce occasional symptomatic hypotension. Elevated Liver Enzymes: Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Periodic monitoring of liver function in patients receiving verapamil is therefore prudent. Accessory Bypass Tract (Wolff-Parkinson-White): Patients with paroxysmal and/or chronic atrial flutter or atrial fibrillation and a coexisting accessory AV pathway have developed increased antegrade conduction across the accessory pathway producing a very rapid ventricular response or ventricular fibrillation after receiving intravenous verapamil. While this has not been reported with oral verapamil, it should be considered a potential risk. Treatment is usually 0. C.-cardioversion. Atrioventricular Block: The effect of verapamil on AV conduction and the SA node may cause asymptomatic 1st degree AV block and transient bradycardia. Higher degrees of AV block, while infrequent (0.8%), may require a reduction in dosage or, in rare instances, discontinuation of verapamil HCl. Patients with Hypertrophic Cardiomyopathy (IHSS): Although verapamil has been used in the therapy of patients with IHSS, severe cardiovascular decompensation and death have been noted in this patient population.

PRECAUTIONS: **Impaired Hepatic or Renal Function:** Verapamil is highly metabolized by the liver with about 70% of an administered dose excreted in the urine. In patients with impaired hepatic or renal function verapamil should be administered cautiously and the patients monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacological effects (see OVERDOSSAGE).

Drug Interactions: **Beta Blockers:** Concomitant use of ISOPTIN and oral beta-adrenergic blocking agents may be beneficial in certain patients with chronic stable angina or hypertension, but available information is not sufficient to predict with confidence the effects of concurrent treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities. **Digitalis:** Clinical use of verapamil in digitalized patients has shown the combination to be well tolerated if digoxin doses are properly adjusted. However, chronic verapamil treatment increases serum digoxin levels by 50 to 75% during the first week of therapy and this can result in digitalis toxicity. Upon discontinuation of ISOPTIN (verapamil HCl), the patient should be reassessed to avoid underdigitalization. **Antihypertensive Agents:** Verapamil administered concomitantly with oral antihypertensive agents (e.g., vasodilators, angiotensin-converting enzyme inhibitors, diuretics, beta blockers, prazosin) will usually have an additive effect on lowering blood pressure. Patients receiving these combinations should be appropriately monitored. **Oisopyramide:** Oisopyramide should not be administered within 48 hours before or 24 hours after verapamil administration. **Quinidine:** In patients with hypertrophic cardiomyopathy (IHSS), concomitant use of verapamil and quinidine resulted in significant hypotension. There has been a report of increased quinidine levels during verapamil therapy. **Nitrates:** The pharmacologic profile of verapamil and nitrates as well as clinical experience suggest beneficial interactions. **Cimetidine:** Two clinical trials have shown a lack of significant verapamil interaction with cimetidine. A third study showed cimetidine reduced verapamil clearance and increased elimination to 1/2. **Anesthetic Agents:** Verapamil may potentiate the activity of neuromuscular blocking agents and inhalation anesthetics. **Carbamazepine:** Verapamil may increase carbamazepine concentrations during combined therapy. **Rifampin:** Therapy with rifampin may markedly reduce oral verapamil bioavailability. **Lithium:** Verapamil may lower lithium levels in patient on chronic oral lithium therapy. **Carcinogenesis, Mutagenesis, Impairment of Fertility:** There was no evidence of a carcinogenic potential of verapamil administered to rats for two years. Verapamil was not mutagenic in the Ames test. Studies in female rats did not show impaired fertility. Effects on male fertility have not been determined. **Pregnancy (Category C):** There are no adequate and well-controlled studies in pregnant women. ISOPTIN crosses the placental barrier and can be detected in umbilical vein blood at delivery. This drug should be used during pregnancy, labor, and delivery, only if clearly needed. **Nursing Mothers:** ISOPTIN is excreted in human milk, therefore, nursing should be discontinued while verapamil is administered. **Pediatric Use:** Safety and efficacy of ISOPTIN in children below the age of 18 years have not been established.

ADVERSE REACTIONS: Constipation 8.4%, dizziness 3.5%, nausea 2.7%, hypotension 2.5%, edema 2.1%, headache 1.9%, CHF/pulmonary edema 1.8%, fatigue 1.7%, bradycardia 1.4%, 3° AV block 0.8%, flushing 0.1%, elevated liver enzymes (see WARNINGS). The following reactions, reported in less than 1.0% of patients, occurred under conditions (open trials, marketing experience) where a causal relationship is uncertain; they are mentioned to alert the physician to a possible relationship: angina pectoris, arthralgia and rash, AV block, blurred vision, cerebrovascular accident, chest pain, claudication, confusion, diarrhea, dry mouth, dyspnea, ecchymosis or bruising, equilibrium disorders, exanthema, gastrointestinal distress, gingival hyperplasia, gynecomastia, hair loss, hyperkeratosis, impotence, increased urination, insomnia, macules, muscle cramps, myocardial infarction, palpitations, paresthesia, psychotic symptoms, purpura (vasculitis), shakiness, somnolence, spotty menstruation, sweating, syncope, urticaria. **Treatment of Acute Cardiovascular Adverse Reactions:** Whenever severe hypotension or complete AV block occur following oral administration of verapamil, the appropriate emergency measures should be applied immediately, e.g., intravenously administered isoproterenol HCl, levarterenol bitartrate, atropine (all in the usual doses), or calcium gluconate (10% solution). If further support is necessary, inotropic agents (dopamine or dobutamine) may be administered. Actual treatment and dosage should depend on the severity and the clinical situation and the judgment and experience of the treating physician.

OVERDOSSAGE: Treatment of overdosage should be supportive. Beta-adrenergic stimulation or parenteral administration of calcium solutions may increase calcium ion flux across the slow channel, and have been used effectively in treatment of deliberate overdosage with verapamil. Clinically significant hypotensive reactions or fixed high degree AV block should be treated with vasopressor agents or cardiac pacing, respectively. Asystole should be handled by the usual measures including cardiopulmonary resuscitation.

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EMERGENCY PHYSICIANS WANTED. Part-time and full-time positions in northeast Mississippi. Call (601) 328-8385.

BE A "WINTER TEXAN" INTERNIST. Enjoy the warm, beautiful Rio Grande Valley while practicing internal medicine with an internist. Texas license essential. Salary, living accommodations and malpractice insurance. Send curriculum vitae. 104 South Bryan Road, Mission, TX 78572 or phone (512) 585-2783 for more information.

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Mississippi Emergency Association, P.A. (MEA) is a physician-owned and managed group committed to the financial security and personal development of each physician member. Compensation will vary depending on qualifications, experience, and work location. All inquiries will be kept confidential.

POSITION AVAILABLE IMMEDIATELY! A 409 bed hospital with a 24-hour Emergency Department in Jackson, Mississippi is looking for a full-time, Board Certified physician with two or more years experience. Excellent compensation and benefits.

POSITION AVAILABLE JULY 1, 1987! An 85 bed hospital with a 24-hour Emergency Department in Brandon, Mississippi is looking for a full-time, Board Qualified physician. Excellent compensation and benefits.

POSITION AVAILABLE JULY 1, 1987! A 160 bed Medical Center with a 24-hour Emergency Department in McComb, Mississippi is looking for a full-time Board Qualified physician. Opportunity for Directorship. Excellent compensation and benefits.

For more information, please write or call:

Sheila M. Lunceford, Assistant Administrator
P.O. Box 12917
Jackson, MS 39236-2917
Phone: (601) 366-6503

PLACEMENT SERVICE / Continued

MULTI-SPECIALITY CLINIC seeks BC/BE hematologist/oncologist. Modern, fully equipped 220-bed hospital. Contact John Wallace, Internal Medicine Clinic, 1203 Jefferson Street, Laurel, MS 39442. Phone (601) 649-6382 or MS WATS 1-800-654-7918.

PEDIATRICIAN: Practice opportunity for BE/BC pediatrician in a warm and friendly community in eastern South Carolina, North Myrtle Beach vicinity. Ideal recreational opportunities include beach, sailing, fishing, tennis and golf. Pediatric practice well established. Excellent financial package from hospital — a 105-bed modern hospital with 40-bed extended care facility. Contact Alton Ewing, Assistant Administrator, Loris Community Hospital, Loris, SC 29569; (803) 756-4011.

EXCELLENT TEXAS OPPORTUNITY for a F/P, G/P, G/S, and I/M person to practice in a lake area community, in the beautiful Piney Woods area of east Texas. First year guarantee, etc. Send CV to Medical Support Services, 11509 Quarterhorse Trail, Austin, TX 78750 or call Armando L. Frezza, 512/331-4164.

EXCELLENT TEXAS OPPORTUNITY for a OB/GYN and P/D person to practice in a community close in to Houston, TX. Enjoy country living at its best with the convenience of Houston nearby. First year guarantee, etc. Send C/V to Medical Support Services, 11509 Quarterhorse Trail, Austin, TX 78750 or call Armando L. Frezza, 512/331-4164.

CARDIOLOGIST: Invasive or non-invasive to join a group practice in Anniston, Alabama. Full service cardiology, consultative practice in two hospitals with full invasive and non-invasive laboratories. Excellent compensation, productivity, and fringe benefits package. Full partnership available after one year. Contact: David P. Schroeder, M.D., 1130 Leighton Avenue, Anniston, AL 36201; (205) 236-5181.

FAMILY PHYSICIAN

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Contact:

Robert L. Lingle,
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Singing River Hospital System
2809 Denny Avenue
Pascagoula, MS 39567
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CLASSIFIED

FOR SALE: Professional building in Mendenhall, MS occupied by physicians for 12 years and leased until March 1987 by two physicians in general practice. Brick, 1,500 sq. ft. Ideal for general physician or medical specialty. \$65,000. Owner will finance. Contact: Dr. John Baldwin, 303 Raintree Place, Pineville, LA 71360; (318) 448-3098.

FOR SALE. Medical books (general surgery and orthopedic surgery). Contact Mrs. Hal Windham, 805 Sumrall Road, Columbia, MS 39429; phone (601) 736-3770.

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Recurrent Medulloblastoma in Bone

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MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 21-25, 1987, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 119th Annual Session, June 3-7, 1987, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 29-August 1, 1987, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrick, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Chocataw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. R. Ray Lyle, Secy., P.O. Box 1507, Starkville, MS 39759. Counties: Clay, Oktibbeha.

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly
Mississippi State Medical Association
735 Riverside Drive
Jackson, MS 39216

Mississippi Chapter
American College of Surgeons
Box 5229
Jackson, MS 39216

North Mississippi Medical Center
830 Gloster Avenue
Tupelo, MS 38801

North Panola County Hospital
Drawer 160
Sardis, MS 38666

Forrest General Hospital
Box 1897
Hattiesburg, MS 39401

Singing River Hospital
P.O. Box 112
Pascagoula, MS 39567

Mississippi Baptist Hospital
1225 N. State Street
Jackson, MS 39201

Magnolia Hospital
Alcorn Drive
Corinth, MS 38834

Gulf Coast Community Hospital
4642 W. Beach Boulevard
Biloxi, MS 39531

Greenwood Leflore Hospital
1508 Leflore Avenue
Greenwood, MS 38930

Jefferson Davis Memorial Hospital
Box 1488
Natchez, MS 39120

Gulfport Memorial Hospital
4500 13th Street
Gulfport, MS 39501

King's Daughter Hospital
Box 948
Brookhaven, MS 39601

Oxford-Lafayette County Hospital
P.O. Box 946
Oxford, MS 38655

Riverside Hospital
Lakeland Drive
Jackson, MS 39208

Biloxi Regional Medical Center
1559 Lafayette St.
Biloxi, MS 39533

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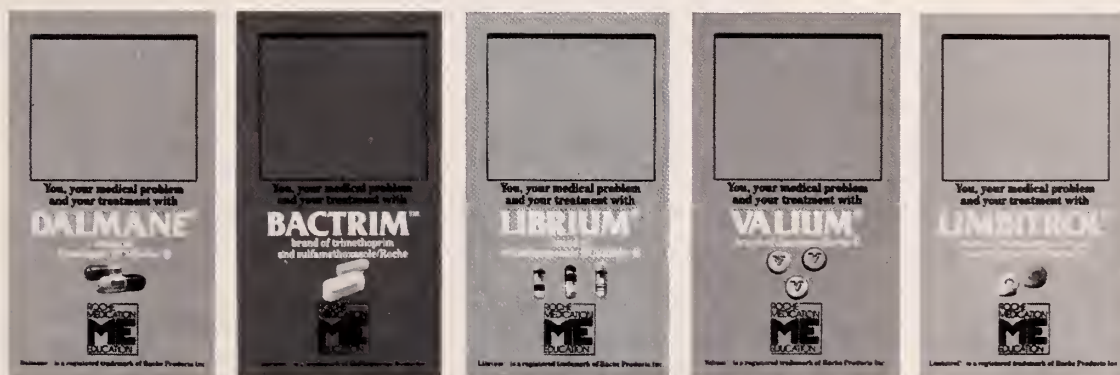


- ... improve patient satisfaction with office visits
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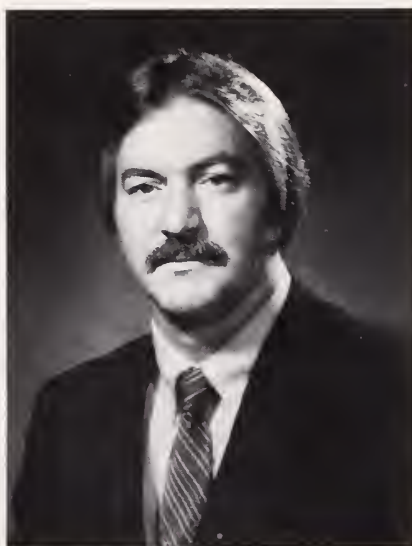
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Harold E. Curtis



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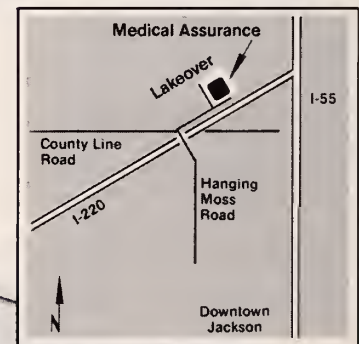
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100

NEWSLETTER

April 1987

Dear Doctor:

Please pass this word to your community's civic clubs, churches, parent-teacher groups, and other organizations: MSMA has organized an AIDS speakers bureau, consisting of sixteen physicians who are available to speak in all areas of the state. Most of these speakers attended an AMA-sponsored workshop where they received specialized communications training in discussing AIDS before a variety of audiences as well as with the media.

The speakers bureau, sponsored by the Council on Public Information, has identified two objectives: to control the spread of the disease through education and to quell some of the irrational fears which have developed in the minds of many people. Much public anxiety has resulted from fear of contracting AIDS by donating blood or through casual contact.

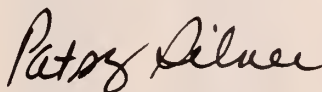
The profession faces the additional challenge of countering the notion that AIDS is a "gay disease." With increasing evidence of infection among heterosexuals, the risk of infection grows among people who are not involved in a mutually monogamous relationship with an uninfected partner. Many people may be unaware of the need to protect themselves and others.

It is imperative that the public have access to accurate information about transmission of AIDS. Until a vaccine is developed, education is the only way the epidemic can be controlled.

Any group interested in arranging for a speaker may contact the MSMA headquarters office for more information. You are urged to help promote this public service in your community.

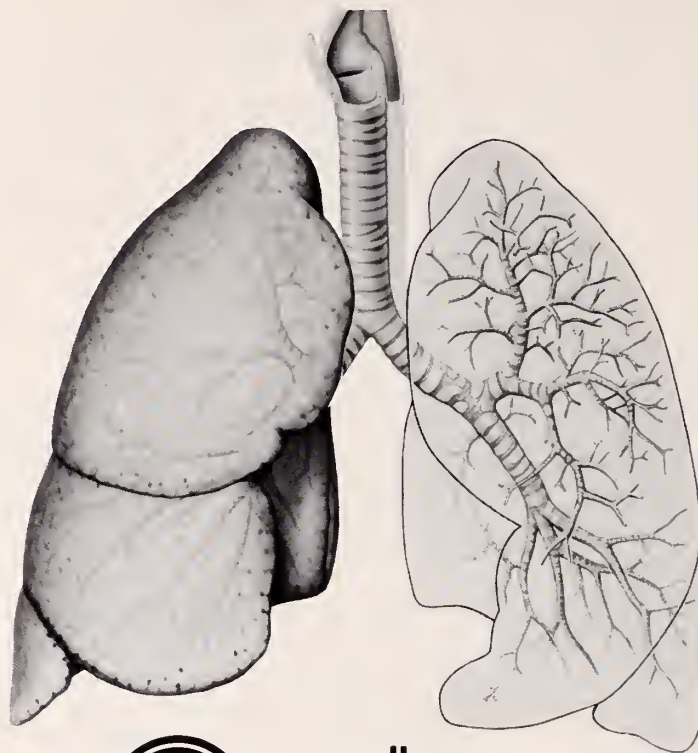
Reminder: The 119th Annual Session will be held at the Royal d'Iberville Hotel in Biloxi, June 3-7. Among many special events will be an address by James J. Kilpatrick - author, columnist and lecturer. Plan now to attend.

Sincerely,



Patsy Silver
Managing Editor

Consider the causative organisms...



Ceclor[®]
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250-mg Pulvules[®] t.i.d.

**offers effectiveness against
the major causes of bacterial bronchitis**

Haemophilus influenzae*, *H influenzae*, *Streptococcus pneumoniae*, *Streptococcus pyogenes
(ampicillin-susceptible) (ampicillin-resistant)

Note: Ceclor[®] is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Ceclor[®] (ceclor)

Summary: Consult the package literature for prescribing information.

Indications: Lower respiratory infections, including pneumonia, caused by susceptible strains of *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Contraindications: Known allergy to cephalosporins.

Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-

associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- In renal impairment, safe dosage of Ceclor may be lower than that usually recommended. Ceclor should be administered with caution in such patients.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor

penetrates mother's milk. Exercise caution in prescribing for these patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children)
- Abnormal urinalysis; elevations in BUN or serum creatinine
- Positive direct Coombs' test
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest[®] tablets but not with Tes-Tape[®] (glucose enzymatic test strip, Lilly)

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(PROPRANOLOL HCl)

after a major nationwide trial...



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to find
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right room.

60,073 patients (90%) who started on INDERAL[®] LA stayed on INDERAL LA.^{1*}

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Because most patients on INDERAL LA (propranolol HCl) don't even know it's working.

A recent double-blind, placebo-controlled, crossover study in 138 hypertensive patients² revealed that INDERAL LA has a side effects profile unsurpassed by atenolol or metoprolol — which shows how well-tolerated once-daily INDERAL LA can be.

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Fifty-nine percent of the time, INDERAL LA stood on its own.

The patients in the nationwide compliance trial were no different from yours. Generally when the antihypertensive regimen is complicated, compliance may become a problem. So, the effectiveness of INDERAL LA as once-daily monotherapy is a big plus. Of the remaining hypertensives in the program, 36% were controlled merely with the addition of a diuretic to INDERAL LA.

For the noncompliant patients in your practice, INDERAL LA may well be the answer.

Almost 20,000 of the patients in the nationwide compliance trial were identified as having been noncompliant with their previous antihypertensive therapy. Their physicians reported that 88% showed improved compliance when placed on once-daily INDERAL LA.

Control, comfort, and compliance

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INDERAL[®] LA
(PROPRANOLOL HCl) LONG ACTING CAPSULES

Like conventional INDERAL Tablets, INDERAL LA should not be used in the presence of congestive heart failure, sinus bradycardia, cardiogenic shock, heart block greater than first degree, and bronchial asthma.

*After a 30-day trial with INDERAL LA, physicians reported that 90% of the patients would remain on INDERAL LA.

The one you know best keeps looking better

Please see next page for brief summary of prescribing information

The one you know best keeps looking better

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. Inderal is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

INDERAL LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, Inderal also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antiarrhythmic effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

INDICATIONS AND USAGE. Hypertension: Inderal LA is indicated in the management of hypertension, it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: Inderal LA is indicated for the long-term management of patients with angina pectoris.

Migraine: Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

WARNINGS. CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or Inderal should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior

to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to prolonged severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

HYPOTHYROIDISM. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. General. Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy. Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia, congestive heart failure; intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSEAGE AND ADMINISTRATION. Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—Dosage must be individualized. Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—Dosage must be individualized. The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily.
PEDIATRIC DOSAGE—At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

REFERENCES:

1. Inderal LA National Compliance Evaluation Program. Data on file, Ayerst Laboratories.
2. Ravid M, Lang R, Jutrin I. The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985; 145: 1321-1323.

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Jon B. Wimbish, Disability Specialist

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DATELINE

MPAC Conference
Is Next Month

Jackson, MS - The Mississippi Medical Political Action Committee will sponsor a political education workshop on May 7 at the Ramada Renaissance Hotel. The day-long workshop features Mike Dunn, an entertaining and informative speaker. Registration will be limited to the first fifty physicians and/or spouses. To reserve a place, call Kay Gatewood at MSMA headquarters.

A&F Museum
Needs Stethoscope

Jackson, MS - The curator at the Agriculture and Forestry Museum is trying to obtain an old stethoscope (1920's) for the MSMA-sponsored Country Doctor's Office. Anyone who has a stethoscope to donate or who can provide information about obtaining one is encouraged to contact Margie Fitzgerald, the museum's curator, at 354-6613. A few changes are being made in the Country Doctor's Office, according to Ms. Fitzgerald.

Physician Recognition
Of Child Sexual Abuse

Chicago, IL - Physicians need to improve their knowledge and skills in diagnosing child sexual abuse if the problem and its consequences are to be minimized, a study in April's American Journal of Diseases of Children says. A survey of 129 pediatricians, family practitioners and others found that the respondents had "limited knowledge of and attitudes about sexual abuse," thus decreasing their recognition and reporting of it.

Primary Cardiac Lymphoma
In AIDS Patients

Chicago, IL - Researchers writing in the March Archives of Pathology and Laboratory Medicine describe what may be the first reported cases of primary cardiac lymphoma in AIDS patients. In neither of the two reported cases was the malignancy suspected clinically. While there have been multiple reports of non-Hodgkins lymphomas developing in AIDS patients, there have been no cases of primary cardiac lymphomas, said the Emory University authors.

AMA Hospital Medical
Staff Section Meeting

Chicago, IL - Hospital medical staffs are urged to send a representative to the AMA's Hospital Medical Staff Section (Ninth Assembly) meeting. The session will be held June 18-22 at the Palmer House in Chicago. For more information, please contact the Department of Hospital Medical Staff Services, American Medical Association, 535 North Dearborn Street, Chicago, IL 60610; phone 312/645-4747 or 645-4753.



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*** WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorthalidone may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other antihypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

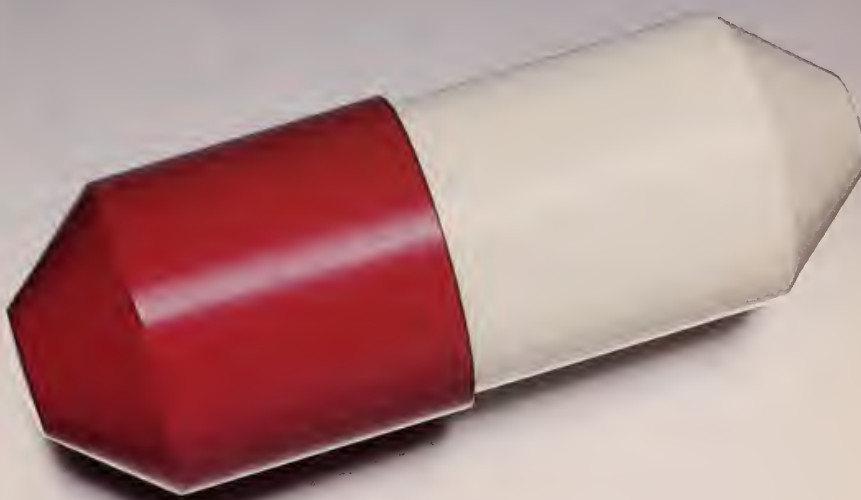
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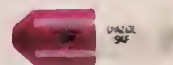
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Please see brief summary of Glucotrol[®] (glipizide) prescribing information on next page.

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Reference:

1. Sachs R, Frank M, Fishman SK. Overview of clinical experience with glipizide. In *Glipizide: A Worldwide Review*. Princeton, NJ: Excerpta Medica; 1984. pp 163-172.

GLUCOTROL® (glipizide) Tablets

Brief Summary of Prescribing Information

INDICATIONS AND USAGE: GLUCOTROL is indicated as an adjunct to diet for the control of hyperglycemia in patients with non-insulin-dependent diabetes mellitus (NIDDM, type II) after an adequate trial of dietary therapy has proved unsatisfactory.

CONTRAINDICATIONS: GLUCOTROL is contraindicated in patients with known hypersensitivity to the drug or with diabetic ketoacidosis, with or without coma, which should be treated with insulin.

SPECIAL WARNING ON INCREASED RISK OF CARDIOVASCULAR MORTALITY: The administration of oral hypoglycemic drugs has been reported to be associated with increased cardiovascular mortality as compared to treatment with diet alone or diet plus insulin. This warning is based on the study conducted by the University Group Diabetes Program (UGDP), a long-term prospective clinical trial designed to evaluate the effectiveness of glucose-lowering drugs in preventing or delaying vascular complications in patients with non-insulin-dependent diabetes. The study involved 823 patients who were randomly assigned to one of four treatment groups (Diabetes, 19, supp. 2:747-830, 1970).

UGDP reported that patients treated for 5 to 8 years with diet plus a fixed dose of tolbutamide (1.5 grams per day) had a rate of cardiovascular mortality approximately 2-1/2 times that of patients treated with diet alone. A significant increase in total mortality was not observed, but the use of tolbutamide was discontinued based on the increase in cardiovascular mortality, thus limiting the opportunity for the study to show an increase in overall mortality. Despite controversy regarding the interpretation of these results, the findings of the UGDP study provide an adequate basis for this warning. The patient should be informed of the potential risks and advantages of GLUCOTROL and of alternative modes of therapy.

Although only one drug in the sulfonylurea class (tolbutamide) was included in this study, it is prudent from a safety standpoint to consider that this warning may also apply to other oral hypoglycemic drugs in this class, in view of their close similarities in mode of action and chemical structure.

PRECAUTIONS: Renal and Hepatic Disease: The metabolism and excretion of GLUCOTROL may be slowed in patients with impaired renal and/or hepatic function. Hypoglycemia may be prolonged in such patients should it occur.

Hypoglycemia: All sulfonylureas are capable of producing severe hypoglycemia. Proper patient selection, dosage, and instructions are important to avoid hypoglycemia. Renal or hepatic insufficiency may increase the risk of hypoglycemic reactions. Elderly, debilitated or malnourished patients and those with adrenal or pituitary insufficiency are particularly susceptible to the hypoglycemic action of glucose-lowering drugs. Hypoglycemia may be difficult to recognize in the elderly or people taking beta-adrenergic blocking drugs. Hypoglycemia is more likely to occur when caloric intake is deficient, after severe or prolonged exercise, when alcohol is ingested, or when more than one glucose-lowering drug is used.

Loss of Control of Blood Glucose: A loss of control may occur in diabetic patients exposed to stress such as fever, trauma, infection or surgery. It may then be necessary to discontinue GLUCOTROL and administer insulin.

Laboratory Tests: Blood and urine glucose should be monitored periodically. Measurement of glycosylated hemoglobin may be useful.

Information for Patients: Patients should be informed of the potential risks and advantages of GLUCOTROL, of alternative modes of therapy, as well as the importance of adhering to dietary instructions, of a regular exercise program, and of regular testing of urine and/or blood glucose. The risks of hypoglycemia, its symptoms and treatment, and conditions that predispose to its development should be explained to patients and responsible family members. Primary and secondary failure should also be explained.

Drug Interactions: The hypoglycemic action of sulfonylureas may be potentiated by certain drugs including non-steroidal anti-inflammatory agents and other drugs that are highly protein bound, salicylates, sulfonamides, chloramphenicol, probenecid, coumarins, monoamine oxidase inhibitors, and beta adrenergic blocking agents. *In vitro* studies indicate that GLUCOTROL binds differently than tolbutamide and does not interact with salicylate or dicumamol. However, caution must be exercised in extrapolating these findings to a clinical situation. Certain drugs tend to produce hyperglycemia and may lead to loss of control, including the thiazides and other diuretics, corticosteroids, phenothiazines, thyroid products, estrogens, oral contraceptives, phenytoin, nicotinic acid, sympathomimetics, calcium channel blocking drugs, and isoniazid. A potential interaction between oral miconazole and oral hypoglycemic agents leading to severe hypoglycemia has been reported. Whether this interaction also occurs with the intravenous, topical, or vaginal preparations of miconazole is not known.

Carcinogenesis, Mutagenesis, Impairment of Fertility: A 20-month study in rats and an 18-month study in mice at doses up to 75 times the maximum human dose revealed no evidence of drug-related carcinogenicity. Bacterial and *in vivo* mutagenicity tests were uniformly negative. Studies in rats of both sexes at doses up to 75 times the human dose showed no effects on fertility.

Pregnancy: Pregnancy Category C: GLUCOTROL (glipizide) was found to be mildly fetotoxic in rat reproductive studies at all dose levels (5-50 mg/kg). This fetotoxicity has been similarly noted with other sulfonylureas, such as tolbutamide and tolazamide. The effect is perinatal and believed to be directly related to the pharmacologic (hypoglycemic) action of GLUCOTROL. In studies in rats and rabbits no teratogenic effects were found. There are no adequate and well-controlled studies in pregnant women. GLUCOTROL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Because recent information suggests that abnormal blood glucose levels during pregnancy are associated with a higher incidence of congenital abnormalities, many experts recommend that insulin be used during pregnancy to maintain blood glucose levels as close to normal as possible.

Nonteratogenic Effects: Prolonged severe hypoglycemia has been reported in neonates born to mothers who were receiving a sulfonylurea drug at the time of delivery. This has been reported more frequently with the use of agents with prolonged half-lives. GLUCOTROL should be discontinued at least one month before the expected delivery date.

Nursing Mothers: Since some sulfonylurea drugs are known to be excreted in human milk, insulin therapy should be considered if nursing is to be continued.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: In controlled studies, the frequency of serious adverse reactions reported was very low. Of 702 patients, 11.8% reported adverse reactions and in only 1.5% was GLUCOTROL discontinued.

Hypoglycemia: See PRECAUTIONS and OVERDOSAGE sections.

Gastrointestinal: Gastrointestinal disturbances, the most common, were reported with the following approximate incidence: nausea and diarrhea, one in 70; constipation and gastralgia, one in 100. They appear to be dose-related and may disappear on division or reduction of dosage. Cholestatic jaundice may occur rarely with sulfonylureas. GLUCOTROL should be discontinued if this occurs.

Dermatologic: Allergic skin reactions including erythema, morbilliform or maculopapular eruptions, urticaria, pruritus, and eczema have been reported in about one in 70 patients. These may be transient and may disappear despite continued use of GLUCOTROL, if skin reactions persist, the drug should be discontinued. Porphyrin cutanea tarda and photosensitivity reactions have been reported with sulfonylureas.

Hematologic: Leukopenia, agranulocytosis, thrombocytopenia, hemolytic anemia, aplastic anemia, and pancytopenia have been reported with sulfonylureas.

Metabolic: Hepatic porphyria and disulfiram-like alcohol reactions have been reported with sulfonylureas. Clinical experience to date has shown that GLUCOTROL has an extremely low incidence of disulfiram-like reactions.

Endocrine Reactions: Cases of hyponatremia and the syndrome of inappropriate antidiuretic hormone (SIADH) secretion have been reported with this and other sulfonylureas.

Miscellaneous: Dizziness, drowsiness, and headache have been reported in about one in fifty patients treated with GLUCOTROL. They are usually transient and seldom require discontinuance of therapy.

OVERDOSAGE: Overdosage of sulfonylureas including GLUCOTROL can produce hypoglycemia. If hypoglycemic coma is diagnosed or suspected, the patient should be given a rapid intravenous injection of concentrated (50%) glucose solution. This should be followed by a continuous infusion of a more dilute (10%) glucose solution at a rate that will maintain the blood glucose at a level above 100 mg/dL. Patients should be closely monitored for a minimum of 24 to 48 hours since hypoglycemia may recur after apparent clinical recovery. Clearance of GLUCOTROL from plasma would be prolonged in persons with liver disease. Because of the extensive protein binding of GLUCOTROL (glipizide), dialysis is unlikely to be of benefit.

DOSE AND ADMINISTRATION: There is no fixed dosage regimen for the management of diabetes mellitus with GLUCOTROL; in general, it should be given approximately 30 minutes before a meal to achieve the greatest reduction in postprandial hyperglycemia.

Initial Dose: The recommended starting dose is 5 mg before breakfast. Geriatric patients or those with liver disease may be started on 2.5 mg. Dosage adjustments should ordinarily be in increments of 2.5-5 mg, as determined by blood glucose response. At least several days should elapse between titration steps.

Maximum Dose: The maximum recommended total daily dose is 40 mg.

Maintenance: Some patients may be effectively controlled on a once-a-day regimen, while others show better response with divided dosing. Total daily doses above 15 mg should ordinarily be divided.

HOW SUPPLIED: GLUCOTROL is available as white, dye-free, scored diamond-shaped tablets imprinted as follows: 5 mg tablet—Pfizer 411 (NDC 5 mg 0049-4110-66) Bottles of 100; 10 mg tablet—Pfizer 412 (NDC 10 mg 0049-4120-65) Bottles of 100.

CAUTION: Federal law prohibits dispensing without prescription.

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ORIGINAL PAPERS

Quality of Life after Loco-Regional Recurrence and in Advanced Breast Cancer

ANUPAM ROUTH, M.D.

BERNARD T. HICKMAN, M.D.

Jackson, Mississippi

ACCORDING TO THE American Cancer Society, 123,900 women were expected to develop breast cancer in 1986.¹ In approximately 20% of these women loco-regional recurrence will occur.² This means that 24,700 women will have local recurrence after mastectomy.

The incidence of loco-regional recurrence in 24,780 women is more than the projected incidence of carcinoma of the larynx (11,700), cervix (14,000), brain (13,800), and Hodgkin's disease (6,900) in 1986.¹

Special consideration should be given to the impact of local recurrence on the patients' quality of life until their death. The following two case histories illustrate the point:

Case Report 1

This 31-year-old patient had noticed a mass in the right breast for about one year but neglected to seek medical advice. The mass grew in size and fungated. She subsequently consulted a physician who referred her to a surgeon. The mass was 12 x 11 x 8cm with clinically involved axillary nodes. She was admitted to the hospital in March 1984. Her last menstrual period (LMP) was on 2-16-84.

From the Department of Radiation Therapy, University Medical Center, Jackson, MS.

About 123,900 new breast cancer cases were expected to be reported in 1986 according to the American Cancer Society. Twenty percent of these women will have loco-regional recurrence. According to the authors, loco-regional recurrence decreases the quality of life of these patients. They suggest more aggressive management and state that the nihilistic approach taken at the present toward these patients should be changed.

A biopsy revealed poorly differentiated infiltrative ductal carcinoma. Bone scan, liver/spleen scan, and CT head scan were normal. There was no evidence of distant metastases. The patient underwent a modified radical mastectomy and received a split thickness skin graft from the right thigh for covering the chest wall defect. Six of eleven nodes contained metastatic tumor. Estrogen and progesterone receptors were negative.

Chemotherapy containing Adriamycin was begun, but the patient did not receive loco-regional radiation therapy. Local recurrence developed after five months. At the same time the patient was found

to be pregnant. Chemotherapy with Adriamycin was continued. The patient later delivered a 3720 gram female child with apgar score of 9 and 10. The baby was born without any problems. After the patient reached the maximum dose of Adriamycin, the chemotherapy was changed to COMF.

After about one year the patient developed a single brain metastasis which was resected. The patient received postoperative radiation therapy to the brain consisting to 3600 rads in 18 fractions. After another six months the patient was referred to us for locoregional radiotherapy (see Figure 1). The patient's chemotherapy was changed to Vinblastine and Mitomycin-C. Unfortunately, she did not respond well. Even before radiotherapy treatment was completed, new recurrences occurred both inside and outside the treatment area.

Case Report 2

This 61-year-old patient had a mass in her right breast for two to three years. She did not consult any doctors during this period. When she finally went to the doctor, she had an advanced local lesion. The right breast was destroyed by tumor. Biopsy of the skin revealed poorly differentiated adenocarcinoma consistent with breast origin. Chest x-ray revealed a left hilar mass and multiple nodules in the lung parenchyma. She was started on chemotherapy and received many courses. She initially received six courses of CAF and Tomoxifen; then she received Alkeran and Oncovin followed by VP-

16 and 5FU. The last drug she received was Mitomycin-C. She was referred to the radiation therapy department after receiving one year of chemotherapy. When she came for radiation therapy the disease had spread into the chest wall, both anteriorly and posteriorly (see Figures 2 and 3). She was treated with radiation therapy and had an excellent local response (see Figure 4). She is still alive with no signs of local recurrence one year after treatment.

Both of these patients illustrate the importance of control of local disease. Both patients had a miserable existence due to local recurrence. Neither could go out of her home because of disfigurement, and each became a prisoner in her own home. They had no social life because of the uncontrolled disease. Even though both patients will most probably die of distant metastasis, the quality of life of the second patient improved because of local control of the disease. She was no longer ashamed to meet her friends and go outside her house. The first patient was not that fortunate. Her local disease could not be controlled. She will have a miserable existence until she dies.

Discussion

The five year survival of patients with local recurrence reported by different authors varies from 22 to 36%. Fentiman et al³ reported a survival of 22%. Toonkel et al⁴ reported a survival rate of 23%, and Dr. Bedwinek⁵ reported the highest survival rate of 36%.

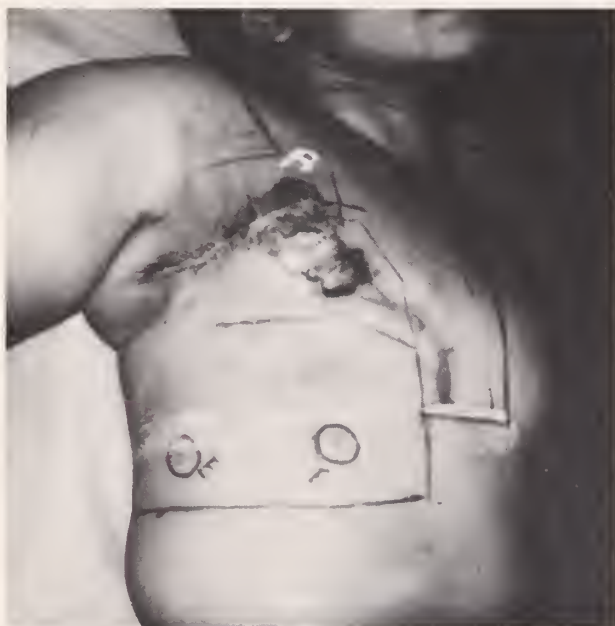


Figure 1. Extent of local recurrence before treatment (case 1).



Figure 2. Anterior extent of local disease before treatment (case 2).



Figure 3. Posterior extent of local disease before treatment (case 2).



Figure 4. Anterior view — complete disappearance of local recurrence after treatment (case 2).

Local recurrence is defined as recurrence in skin or subcutaneous tissue of the chest wall at the mastectomy site. Regional recurrence is the appearance of lesions of the axilla, supraclavicular nodes on the ipsilateral side, and internal mammary nodes.

Dr. Blacklay⁶ divided the chest wall recurrence into three groups: (1) spot recurrence, (2) multiple spot recurrence, and (3) field change. Spot recurrence is a circumscribed nodule that occurs in the skin flap or scar. Multiple spot recurrence is the appearance of multiple nodules either de novo or after treatment of single spot recurrence. Field change is a widespread infiltration of the flaps in the scar which often has eczematous appearance and occurs de novo. Local control by local excision or radiotherapy was achieved in 79% of the patients who had spot or multiple spot recurrences. But when there is a field change, local control is achieved only in 32% of the patients. He suggested that spot recurrence may be an accident of the surgeon's knife which occurred during surgery. Field change is the hallmark of a highly invasive cancer which infiltrates the skin in and around the flaps and which would not have been controlled with even a wide excision.

Mechanism

The most probable mechanism of local recurrence is considered to be due to the transection of involved

lymphatics with local seeding or retrograde embolization.

The size of the tumor and involvement of lymph nodes in the axilla at the time of mastectomy appear to be related to the development of recurrence.⁷

Many clinicians have thought that a recurrence within the mastectomy scar was secondary to residual cancer cells spilled at the time of surgery and entrapped within the fibrotic tissues of the scar itself, therefore, representing a "favorable" recurrence.⁴

Dr. Nixon⁸ used a computer to prognosticate about local recurrence in 240 patients. He used four high risk factors: (a) tumor size more than 5cm, (b) axillary node involvement, (c) negative estrogen receptor status, and (d) poor histological differentiation. The computer projected local recurrence in 44 patients (18.3%). The actual observed recurrence was 51 (21.2%).

The Cancer Research Campaign (King/Cambridge) trial⁹ has proved that prophylactic radiation therapy to the chest wall prevents loco-regional recurrence even though the ultimate survival may not be changed.

Summary

A nihilistic approach has been taken to these unfortunate groups, *ie* (a) patients with loco-regional

recurrence and (b) patients with advanced breast carcinoma, because 80% of them will develop distant metastasis at a later date. But it also means that by aggressive local therapy 20% (4,956) of them may be cured. Chu¹⁰ treated 215 patients with aggressive radiotherapy. Forty-four (21%) survived 5 years.

We suggest that patients in high risk groups should have loco-regional radiation therapy along with chemotherapy to prevent loco-regional recurrence. These groups are (a) patients with large primary tumor — 5cm or more, (b) patients with positive axillary nodes, (c) patients with Grade III tumors, and (d) patients with negative estrogen receptors.

★★★

2500 North State Street (39216)

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Recurrent Medulloblastoma in Bone

JULIAN B. HILL, M.D.,
RICHARD GRISWOLD, M.D.,
NAN FRANCIS, R.N., and
JOHN BLAKEY, M.D.
Tupelo, Mississippi

MEDULLOBLASTOMA is a posterior fossa tumor which is the most common malignant tumor of childhood. In past years, after treatment with surgery and radiotherapy, recurrence was most often seen in the posterior fossa and other areas of the neuraxis.¹ We report a case of recurrent medulloblastoma in which the metastases were entirely skeletal.

Case Report

A 29-year-old man was referred to the North Mississippi Medical Center in November 1986 because of bone pain and abnormalities on bone scan. In July 1985 a craniotomy was performed because of a posterior fossa tumor. A neuropathologist concurred with the diagnosis of medulloblastoma, and the patient received 5400 rads whole brain radiotherapy in 180 rad fractions over 30 treatments as well as spinal radiotherapy consisting of 3000 rads to the upper and lower spine in 17 fractions employing a sliding gap technique. He did well until October 1986, when he began to complain of pain in the ribs and back. Plain films were unrevealing but a bone scan disclosed multiple areas of abnormal uptake in ribs and pelvis (see Figure 1). Plain films of the pelvis showed osteoblastic change in the right ilium corresponding to areas of bone scan abnormality (see Figure 2). A CT head scan gave no evidence of recurrent tumor in the posterior fossa. Cytospin performed on a specimen of spinal fluid was without evidence of tumor. An open biopsy of the ilial lesion was performed and disclosed tumor consistent with recurrent medulloblastoma (see Figure 3). A representative specimen from the primary

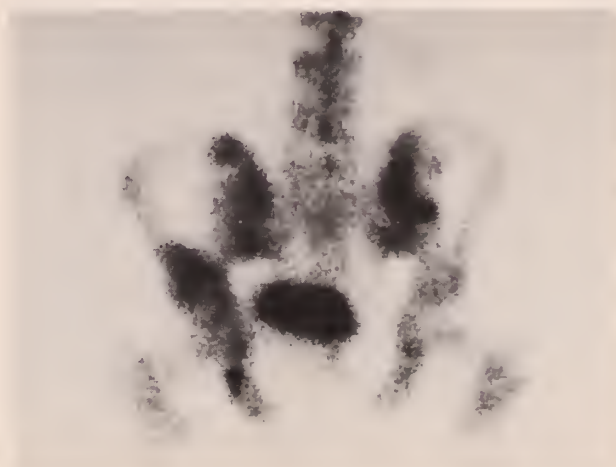


Figure 1. Tc99m bone scan reveals increased uptake in the right ilium.

Medulloblastoma is a common malignancy of childhood which usually remains confined to the central nervous system. The authors report a case in which metastases were entirely skeletal and exhibited a pattern of radiographic abnormality previously described as characteristic of medulloblastoma in bone. They review the natural history of medulloblastoma and recent developments in its treatment.

tumor is shown in Figure 4.

The patient is currently undergoing chemotherapy with Vincristine, BCNU and Decadron and has experienced subjective relief of bone pain.

From the North Mississippi Clinical Community Oncology Program and the North Mississippi Medical Center, Tupelo, MS.



Figure 2. Plain films of the pelvis show osteoblastic change in the right ilium.

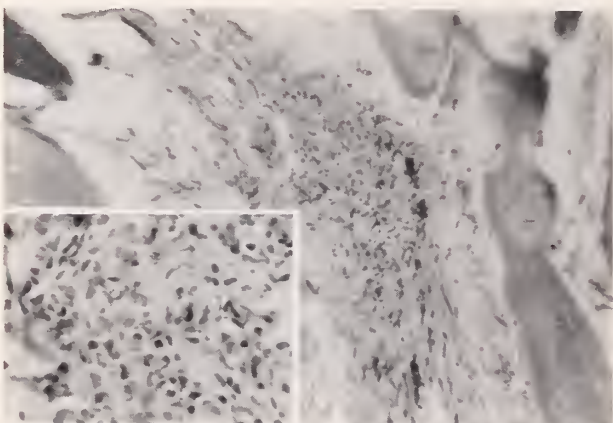


Figure 3. Biopsy of right ilial metastasis: Small cell malignant neoplasm consistent with recurrent medulloblastoma (40 \times ; inset 400 \times).

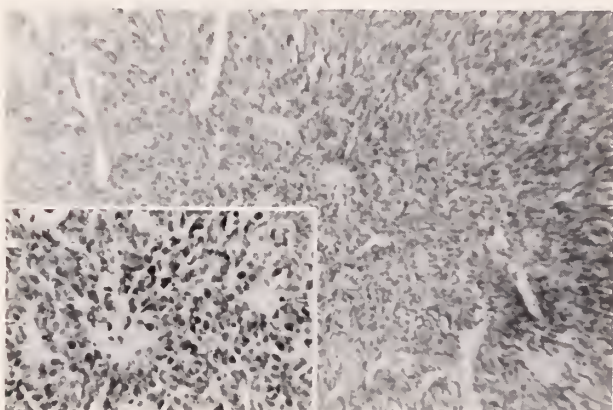


Figure 4. Primary cerebellar tumor: Small cell malignant neoplasm showing focal rosette formation (40 \times ; inset 400 \times).

Discussion

Formerly recurrences of medulloblastoma developed in the posterior fossa or as "drop metastases" in the spinal subarachnoid space. With the development of modern radiotherapeutic techniques, the natural history of medulloblastoma has changed.^{2, 3, 4} Improvement in local control and survival has resulted in more patients presenting with systemic metastases, particularly in bone, where an osteoblastic appearance is typical. Though systemic metastases are more often seen in patients who require peritoneal or pleural shunting, they have been well documented in cases without shunting.⁵

The development of chemotherapy active against medulloblastoma^{6, 7} has led to the incorporation of this modality into current clinical trials.^{8, 9} It is hoped that the addition of adjuvant chemotherapy will effect another, more satisfactory change in the natural history of this disease. ★★★

806 Garfield Street (38801)

Acknowledgements

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The authors wish to thank Dr. Ruby Griffin for the referral of this patient.

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New Limitations on Losses and Credits From Passive Activities

GLOVER A. RUSSELL, JR., J.D.

Jackson, Mississippi

AS PART OF its continuing battle against perceived abuses in the tax shelter area, Congress has adopted, as part of the Tax Reform Act of 1986, substantial new restrictions on the use of deductions and credits by taxpayers. Probably the most significant of these provisions, from the point of view of investors seeking to shelter income, is new Section 469 of the Internal Revenue Code of 1986, which limits the deductibility of losses and credits from "passive activities."

The new section operates by segregating income and loss of the taxpayer into one of three categories: active, passive and portfolio. "Portfolio" income includes income from interest, dividends and royalties. "Passive" income or loss is that arising from a trade or business in which the taxpayer does not "materially participate," but does not include portfolio income. "Active" income or loss is that which does not fall within the "passive" or "portfolio" categories.

Looking at these three categories from a practical rather than a technical viewpoint, the rationale behind the segregation is clear. The "active" category will include the income and loss, if any, from the taxpayer's actual business or profession, while the "portfolio" category picks up income from traditional income-producing investments — ie, stock and bonds. That leaves for the "passive" category income and loss from nontraditional investments in limited partnerships and S corporations — in other words, tax shelters.

Special rules apply in the case of rental real estate. Whereas other types of income escape the "passive" category if the income arises from an activity in which the taxpayer "materially participates," all rental activities are conclusively presumed to be passive. If, however, the taxpayer "actively participates" in rental real estate activities, he can offset up to \$25,000 of losses from such activities against nonpassive income. Even this limited exception is phased out as the taxpayer's adjusted gross income increases from \$100,000 to \$150,000.

Once income and loss is segregated into the three categories, the real bite of Section 469 comes into play; the section provides that passive loss may only be offset against passive income.

Consider what this means in the case of a hypothetical investor typical of thousands. Dr. A is a practicing physician with income in excess of \$150,000 and whose investment portfolio includes IBM stock and utility bonds. Last year, in an attempt to shelter part of his income from taxation, Dr. A invested in a real estate limited partnership. He contributed \$1,000 to the partnership and signed a note to contribute \$4,000 more over four years. Due to accelerated depreciation and other tax benefits, Dr. A expected to report taxable loss on account of his investment and was, in fact, able to shelter a substantial portion of his income last year.

This year, however, Dr. A is subject to the rules of new Section 469. The fees he receives as a practicing physician constitute active income. Dividends on account of his IBM stock, and interest on account of the bonds, constitute portfolio income. The loss on account of his partnership interest is a passive loss, and he has no passive income against which

Mr. Russell is an attorney with the firm of Magruder, Montgomery, Brocato and Hosemann, of Jackson, MS.

to offset it. The passive loss is useless to him and, even worse, he is obligated to contribute \$1,000 more to the partnership this year, and \$3,000 more over the next three years. Section 469 allows Dr. A to carry the disallowed passive loss forward to subsequent years when he has passive income, but he will have to change his investment portfolio in order to have passive income in the future. For the moment at least, Dr. A's tax shelter has become a tax disaster.

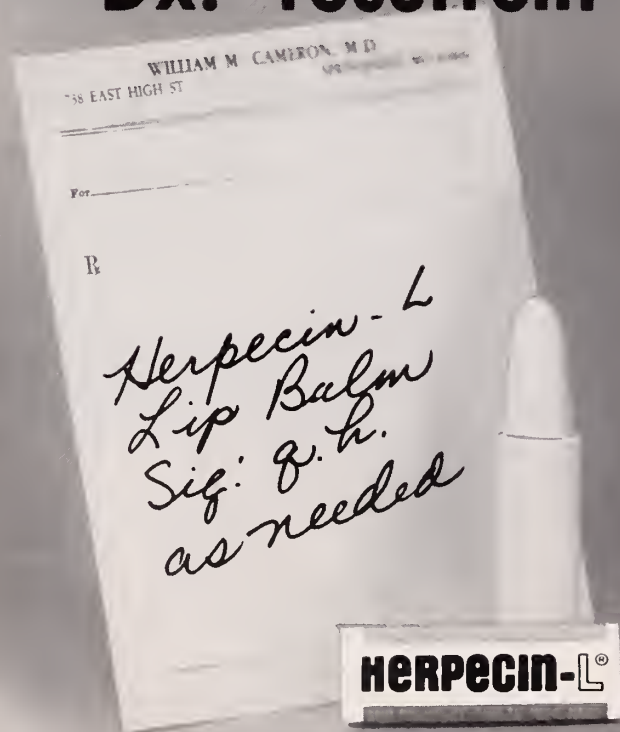
What can Dr. A do? What he and other taxpayers caught in traditional tax shelters will have to do is seek out investments generating passive income.

Having invested in a shelter, he must now somehow obtain income that can still be sheltered.

Income-producing limited partnerships and S corporations have, of course, been around for years, but their attraction has mostly been eclipsed by the flashier tax shelters, with their lure of 3 to 1 write-offs. Now that Section 469 has been enacted, taxpayers who succumbed to that lure in the past will need passive income-producing investments to avoid losing entirely the benefit of their investments in tax shelters. ★★★

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The President Speaking

AIDS and Education

W. JOSEPH BURNETT, M.D.
Oxford, Mississippi

MSMA, with the assistance of the AMA, has organized a Bureau of Physician Spokespersons to work toward educating people about AIDS. As we know, the newspapers and airways are filled everyday with alarming reports about the AIDS "epidemic." When the public hears of the increasing numbers of cases and now "confirmed heterosexual transmission" it is no surprise they have become even more alarmed. Therefore, this Bureau is being set up not only to assist in education and, we hope, in controlling the spread of AIDS, but also to allay public anxiety.

A training seminar recently was held in Atlanta. Once again I was very proud that many of our Mississippi physicians came forward to offer their services to this program. Many Southeastern states were represented at the workshop, but the Mississippi group was one of the largest, most active, and informed groups there.

It was certainly a pleasure to participate and work with this dedicated group of physicians. Believe me, it is obvious to many of our neighboring physicians — in Mississippi medicine is more than curing — it's caring!

Many of our physicians provide countless services "above and beyond the call of duty" for all of us. We owe a great debt to all of these who in different ways serve our profession and our association.

Association Ventures Questioned

I realize that I'm old and ornery and outdated and reactionary (and enjoy every minute of it). I have kept to myself all the smoldering antagonism to what began as a trend, then became a drift, then a slide, and now is an avalanche — our profession's involvement in business ventures in which I fear few of us have any talent or inclination.

I have asked for and received George Hamilton's permission to use his letter on the editorial pages of our thinning journal. It was with a great sense of relief that I found that I was not alone in my fears.

Perhaps it is significant that this letter comes from a psychiatrist, for some of us feel that the Board and officers and staff might benefit from "professional help" to reexamine some of their thinking along the lines of where we are going and how we will get there.

ARTHUR A. DERRICK, M.D.
Associate Editor

To Dr. Burnett:

Many months ago I heard talk of the State Medical Association possibly forming a limited partnership to finance the new office building. This whole concept distressed me greatly and I was relieved when I heard the idea had been shelved.

Now, I am in receipt of your letter of January 6, 1987. I see this whole venture as unnecessarily entangling the State Medical Association in business ventures which could lead to conflict of interest and divisiveness. My personal observations are that the one-third of the membership who probably provide two-thirds of the medical care in the state cannot, or do not, participate in such ventures. If this is

correct, it means the higher income members of our association would be eventually deriving a profit from the dues and assessments of those members not so financially fortunate.

I believe there would also be a direct conflict of interest should any present Board members have the opportunity, and become, a partner. Even more of concern would be my belief that any partner in such a venture would be prohibited from becoming an officer of the association during the lifetime of the venture because of potential conflicts of interest. (I assume that at some later date the partnership will be negotiating a sale back to the State Medical Association.)

I find it difficult to express how strongly opposed I am to the Board of our association getting involved in such entrepreneurship. I hope the Board will consider leaving a good real estate deal to the real estate developers and refocus its attention to helping the members provide good medical care to the people of this state.

Sincerely,
GEORGE C. HAMILTON, M.D.
Jackson, MS

The Importance Of Grass Roots Politics

(Ed. note: Reprinted with permission from FAHS Review, November/December 1986.)

While the 1986 election results are certain to bring change to Capitol Hill, there is no sign yet that the Democratic Senate will produce a major shift in health policy. There may, however, be reason to hope for at least a small movement away from Con-

gress' recent sole dependence on cuts in domestic programs to meet deficit reduction targets.

During the past six years, the political parties have fought over foreign policy, defense, trade, farm programs and judicial appointments. At the same time, there has been a more bipartisan settlement of health issues, often at the expense of providers. One reason certainly is the absence of a vocal, visible grass roots debate over the dangers of health cuts. Unless and until members of Congress see health issues as a potential factor in their re-election, there is unlikely to be a significant change in congressional attitudes about reductions in provider payments or their impact on patients.

The 100th Congress is likely to be more favorable toward domestic programs and less inclined to pump social program dollars into the Defense Department. In addition, some new revenues will be debated — although Democrats will lean over backward to prove they didn't raise tax rates.

Come late spring, we can anticipate a budget resolution for 1988 which will rely on cuts in social spending, cuts in defense spending and revenue increases in fairly equal ratios as an approach to meeting the deficit reduction target. This will mean a little less pressure on the Medicare program itself, but we can't expect a reprieve from further cuts to providers.

Control of the Senate by the Democrats in 1987 means increased influence in health policy for such established Democrats as Senator Lloyd Bentsen (D-Texas), who replaces Senator Bob Packwood (R-Ore) as chairman of the Finance Committee. Senator Max Baucus (D-Mont) is the ranking Democrat on the Finance/Health Subcommittee, and thus may succeed Senator Dave Durenberger (R-Minn) as health chairman. Over at the Senate Labor & Human Resources Committee, we are likely to see a much greater philosophical swing in leadership as Senator Edward Kennedy (D-Mass) becomes chairman, succeeding conservative Senator Orrin Hatch (R-Utah).

Looking to the 100th Congress, it is reasonable to anticipate several developments:

- More attention is likely to be paid to, and a slight increase in dollars provided for, Medicaid.

- Medicare expenditures likely will not be cut as deeply as in the past, at least in the early going; however, hospitals and physicians can expect to suffer at least as high a percentage of those cuts as before, relative to any beneficiary-related changes such as cost-sharing.

- The Office of Management and Budget (OMB), which was influential in health issues during the

"Trade associations can lead, coordinate and do a better job at their advocacy role, but the people at the grass roots level — nurses, technicians, doctors and patients — must provide the evidence and raise their voices in collective outrage. When push comes to shove in Washington, that's how things get done — pressure from home."

recent Hill debate on the budget cuts, likely will not hold the same sway with a Democratic Senate. As a result, HHS Secretary Otis Bowen could have the opportunity to increase his impact on health policy.

- Congress will continue to consider quality control measures intended to "assure" the elderly that budget cuts won't result in reduced services or poorer quality of care. The message in this for hospitals is clear: providers must challenge that "assurance" by offering sound evidence of the dangers to quality from continued deep budget cuts.

- President Reagan's veto power could be exercised more frequently in the final two years of his term, which could cause a stalemate in some important or controversial issues.

- Congress will continue to have little interest in health issues unless and until it sees and hears grass roots movement which would command their attention.

It is ironic that all of the cuts enacted by Congress, the ones with real, long range impact, should fall on the Medicare program.

It is ironic because Democrats in Congress, traditionally the advocates of social programs, seem to be going along with these huge Medicare reductions, joining with those conservative Republicans who want to cut domestic programs in order to fund an expanded defense budget, which many Democrats oppose. We should be asking ourselves how this unlikely bipartisan unity has come to pass.

The answer, I think, lies in large part in the public and political perception of hospitals. The "Washington view" of health providers, shaped over the past 15 years, is based on two premises: that hospitals are profitable, and that hospitals can survive on less without jeopardizing quality.

These assumptions persist partly because the only data available on profitability comes from several years ago, and is not representative of today's competitive era.

Hospitals need to provide current evidence that

(Continued on page 110)

Dangerous and Expensive Ways To Lose Weight

Obesity is a problem for much of the population. Therapy of this condition is difficult, and long-lasting weight loss success is even more challenging.

The fact that the problem exists and that standard medical approaches are not very effective is not an adequate reason to use a dangerous therapeutic approach. Other treatments for obesity, while relatively safe, must be considered bad medical practice because they are known to be useless.

A therapy once popular for obesity is now, unfortunately, being prescribed again. A cardiologist would be hard put to find a combination of drugs better suited to produce cardiac rhythm abnormalities than the "triple threat" of thyroid hormones, diuretics, and the appetite suppressing drugs. It must be admitted that each of these drugs has an effect on weight. But none of them individually or in combination can be considered to have long-term effectiveness, and two of the three (thyroid hormones and diuretics) should never be prescribed for weight loss.

Thyroid hormones alone are perhaps the most dangerous of the three. Pharmacologic doses of thyroid hormones do, of course, elevate the metabolic rate. They also increase the number and activity of catecholamine binding sites. As all physicians know, hyperthyroid patients tend to have cardiac arrhythmias, which may at times be life-threatening. If enough thyroid hormone is given to raise thyroxine and triiodothyronine above the patient's normal level (not necessarily above the upper limit of normal, for that level may be abnormal for the patient) the patient should have a tendency towards increased cardiac irritability. If the patient is already atherosclerotic or hypertensive, his tendency towards such arrhythmias will be accentuated.

There is a warped kind of rationale for giving thyroid hormone to the obese. Metabolic rate is increased. However, the increased consumption of calories does not come differentially from the fat stores. Proteins are burned as well, so the patient goes into negative nitrogen balance. Thyroid hormone therapy is successful as an adjunct to weight loss only by producing another, and more serious disease: hyperthyroidism.

The rationale for the use of diuretics in the treatment of obesity is even less sensible than the use

"We, as physicians, must be loud and clear in our condemnation of dangerous and unacceptable therapy for obesity such as thyroid preparations and diuretics."

of thyroid hormones. Diuretics will lower weight but of course, the weight loss is water, not fat. To be sure, the patient is grateful for those fewer pounds on the scales. But would the patient be grateful if he or she realized how hypokalemia acting in concert with the thyroid excess, increased his chance of arrhythmia which could be fatal? Moreover, potassium deficiency probably produces a *negative protein balance even if the patient is not in negative caloric balance*. There are no studies to determine the consequences of hypokalemia in a person in negative caloric balance, but the combination (of hypokalemia and negative caloric balance) should produce marked protein wasting.

The third component often added to thyroid substance and diuretics to produce weight loss is frequently an appetite suppressant. These drugs may have a valid but limited role in weight control. The limited role is as part of a well planned dietary modification program. These drugs should be restricted to the first few weeks of the program and should never be given with pharmacologic amounts of thyroxine. Almost all of the appetite suppressant drugs are based on amphetamine. This means that they are prone to cause cardiac arrhythmias when given in high doses or to people whose hearts are unduly sensitive.

Many obese patients do have underlying heart disease. In addition the thyroxine-diuretic combination increases cardiac irritability. Then the addition of an amphetamine congener is ideally situated to cause extra systoles or other cardiac rhythm abnormalities.

All in all the three drug combination (thyroid hormones, diuretics, and appetite suppressants) is beautifully designed to produce cardiac irritability. The above considerations apply in a person without underlying cardiac disease. To compound the problem, many of the obese have underlying hypertensive and atherosclerotic heart disease. All these considerations suggests there can be no place even in carefully studied patients who have had extensive cardiovascular investigation, for the thyroxine-thiazide-amphetamine congener combination.

There are other therapies which are less danger-

COMMENT/Continued

ous, but also must be condemned. One of these treatments has been around so long that it's practically a classic. To be sure, it has been known to be useless for almost as long as it has been available. We refer to the injection of chorionic gonadotropins. Careful studies have been done on this form of treatment, comparing weight loss of individuals who are receiving this treatment with weight loss of individuals receiving dummy injections. Both groups felt that they were getting something that helped them. Both groups lost the same weight.

Ironically, the rebirth of dangerous poly-pharmacy is occurring at the same time that evidence is growing for the success of more physiological routes to control weight. Both the authors have worked with teams of psychologists and nutritionists who have concentrated their ability to help patients to lose weight. Regular visits to a trained dietician or psychologist interested in weight loss for several

months, followed by monthly or bimonthly appointments have proved an effective way to induce and maintain weight loss. When such a program is done in groups the cost is moderate. We, as physicians, should try to arrange for such programs. We also must be loud and clear in our condemnation of dangerous and unacceptable therapy for obesity such as thyroid preparations and diuretics. The appetite suppressants, alone, for a short period of time, and combined with an ongoing dietary change program cannot be as completely condemned, but there is doubt as to whether in balance they are desirable.

The diuretic-thyroxin-appetite suppressant combination clearly would be condemned by Hippocrates for his first maxim was *Primum non nocere* (first do no harm). His advice is still good. Let us follow it.

H. G. LANGFORD, M.D.
W. C. NICHOLAS, M.D.
University Medical Center
Jackson, MS



Doctor,

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MEDICAL ORGANIZATION

MSMA Received Membership Award at AMA Conference



During the recent Leadership Conference in Chicago, MSMA received an AMA award for increasing membership in 1986. MSMA president Dr. W. Joseph Burnett, center, accepted the award from Dr. William S. Hotchkiss, left, AMA president-elect, and Dr. Alan R. Nelson, right, chairman of the AMA's Board of Trustees.

Call MSMA Headquarters For AIDS Speakers Bureau

MSMA's Council on Public Information has established a fifteen-member speakers bureau on AIDS. Most of the participants attended an AMA-sponsored workshop in Atlanta last month, and received specialized communications training in discussing AIDS before a variety of audiences, as well as with the media.

"We urge MSMA members to publicize the speakers bureau in their own communities," said Dr. Ted Blanton, chairman of the Council. "At this time the only way we can stop the spread of this disease is through education," he emphasized.

To schedule a speaker or to get more information, call the speakers bureau coordinator, Patsy Silver, at MSMA headquarters (354-5433 in Jackson or 1-800-682-6415 elsewhere in Mississippi).

Population Shift Prompts Geriatric Education at UMC

As Mississippi "grays," the state's future health professionals must learn how they can accommodate the growing numbers of people 65 or older.

Dr. Ames Tryon, director of the Geriatric Education Center at the University of Mississippi Medical Center (UMC), says that citizens 65 or older will account for more than 12 percent of the state's population by the year 2000. Between 1970 and 1980 the elderly population in Mississippi increased by 30 percent — a greater increase than the national average.

The population age shift has created both the need and demand for health professionals who know about the aging process, Tryon said, and the Geriatric Education Center teaches geriatric issues to faculty in all disciplines. "UMC gives its students something of a head start," he said.

The School of Dentistry had a required aging course in its curriculum when the first students enrolled in 1975. It was the first dental school in the country to offer such a course. "Other schools taught geriatric dentistry, but ours is a multidisciplinary course which covers all aspects of aging," Tryon said.

Every January, students provide care — under faculty supervision — to residents of two area nursing homes to gain clinical experience. They clean and label dentures and do routine checks for infections and growths. Students have, in fact, found malignant growths and referred the residents for medical treatment.

The students also accompany home health nurses on their visits. They act as dental consultants, telling the nurse what the patient needs in terms of dental care.

"Our students will be prepared to give care to the elderly whether they live at home or in an institution," Tryon said.

Students in the School of Medicine will be the test subjects for medical students all around the country who will be taught geriatrics. They are participants in a study which seeks to determine the best way of teaching geriatric subject matter to medical students.

The National Fund for Medical Education funded the proposal of psychology division chief Dr. Jeffrey Kelly who also conducts the study. "Virtually

all recent studies indicate that medical students are relatively unknowledgeable about aging, hold stereotyped and often negative attitudes toward elderly patients, and have difficulty interacting comfortably with the elderly," Kelly said.

Students certainly need a body of knowledge about the aging process," he said, "and they also need to learn social skills so they can deal with the elderly efficiently and sensitively. But we need some assurance that what we're teaching them has a payoff in increased knowledge, changed attitudes and deeper sensitivity."

In this, the first year of the project, half of the third-year medical students will attend 10 seminar sessions which teach both information and interpersonal skills. When the students finish the series, they'll be tested for their understanding of the subject matter and how much skill they show in a videotaped interview with an elderly patient. Their scores will be compared to the other half of the class which did not have the seminar sessions.

Next year, Kelly will write a guide for other medical schools to help them implement similar programs.

UMC Names Faculty Appointments

Three have been named in faculty appointments in the Schools of Medicine and Nursing and centerwide at the University of Mississippi Medical Center for the current academic session.

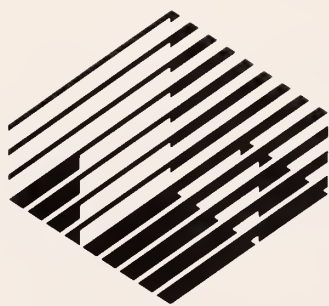
Dr. Norman C. Nelson, UMC vice chancellor for health affairs, announced the appointments following approval by the Board of Trustees of State Institutions of Higher Learning.

In the School of Medicine, Dr. Frank Arthur Raila has been named assistant professor of radiology; Jeanne Hatton Ethridge has been named instructor in nursing in the nursing school; and centerwide, Dr. Clinton Jones has been appointed assistant professor of microbiology.

Dr. Raila earned the B.S. in 1950 at Loyola University, the M.S. in 1953 at the University of Illinois and the M.D. in 1957 at Loyola Medical School. He did his internship at Resurrection Hospital and residency at the Veterans Administration Hospital. He has been chief of radiology and nuclear medicine at the Veterans Administration Medical Center in Dublin, Georgia, and chief of radiology service at the Veterans Administration Medical Center in Augusta, Georgia, and has served on the faculty of the Medical College of Georgia as associate clinical professor. He has been on the medical staff of the Jackson Veterans Administration Medical Center since 1986.

Ms. Ethridge attended Hinds Junior College and earned the B.S. in 1981 at Mississippi College. She received the M.S. in 1983 from the University of Southern Mississippi. She has been on the nursing staff at Mississippi Baptist Medical Center and was a team leader and group cotherapist at the Riverside Adolescent Unit from 1983-1986. She was a clinical nurse specialist in adolescence at Charter Hospital of Jackson before her Medical Center appointment.

Dr. Jones received the B.A. in 1976 from Bethany College and the Ph.D. in 1984 from the University of Kansas. He was a postdoctoral fellow at the Linus Pauling Institute of Science and Medicine before coming to the Medical Center.



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The editors invite your comments, inquiries, and suggestions. Please address letters to the Editors, *Journal of the Mississippi State Medical Association*, P.O. Box 5229, Jackson, MS 39216.

MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 21-25, 1987, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 119th Annual Session, June 3-7, 1987, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 29-August 1, 1987, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrick, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. R. Ray Lyle, Secy., P.O. Box 1507, Starkville, MS 39759. Counties: Clay, Oktibbeha,

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly
Mississippi State Medical Association
735 Riverside Drive
Jackson, MS 39216

North Mississippi Medical Center
830 Gloster Avenue
Tupelo, MS 38801

Forrest General Hospital
Box 1897
Hattiesburg, MS 39401

Mississippi Baptist Hospital
1225 N. State Street
Jackson, MS 39201

Gulf Coast Community Hospital
4642 W. Beach Boulevard
Biloxi, MS 39531

Jefferson Davis Memorial Hospital
Box 1488
Natchez, MS 39120

King's Daughter Hospital
Box 948
Brookhaven, MS 39601

Riverside Hospital
Lakeland Drive
Jackson, MS 39208

Biloxi Regional Medical Center
1559 Lafayette St.
Biloxi, MS 39533

Jeff Anderson Regional Medical Center
2124 14th St.
Meridian, MS 39301

Northwest Mississippi Regional Medical Center
Box 1218
Clarksdale, MS 38614

Mississippi Chapter
American College of Surgeons
Box 5229
Jackson, MS 39216

North Panola County Hospital
Drawer 160
Sardis, MS 38666

Singing River Hospital
P.O. Box 112
Pascagoula, MS 39567

Magnolia Hospital
Alcorn Drive
Corinth, MS 38834

Greenwood Leflore Hospital
1508 Leflore Avenue
Greenwood, MS 38930

Gulfport Memorial Hospital
4500 13th Street
Gulfport, MS 39501

Oxford-Lafayette County Hospital
P.O. Box 946
Oxford, MS 38655

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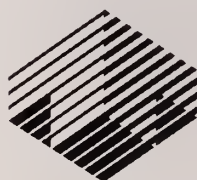
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PERSONALS

ORLANDO ANDY of UMC made two presentations at the Semmes-Murphy Clinic Residents' Reunion in Memphis.

MICHAEL BOLAND of UMC was featured on ETV's "Access" series in a discussion of recent advances in heart research.

WALLACE E. CALHOUN of Moss Point recently was honored with a retirement reception.

OWEN EVANS of UMC was guest lecturer at the Texas Tech Health Sciences Center in Amarillo and Lubbock.

LUTHER FISHER of UMC was a consultant to the medical faculty of the University of Addis Abab, Ethiopia.

ED HILL of Hollandale spoke on the organization and goals of the Mississippi Task Force on Adolescent Health during the AMA's Leadership Conference in Chicago.

GARY HOLDINESS has associated with the Family Medical Clinic of Kosciusko for the practice of family medicine.

SAM JOHNSON of UMC presented a paper at a meeting of the Association of American Physicians and Surgeons in Bermuda.

ROBERT JORDEN of UMC was guest lecturer for a meeting in Orlando of the American College of Surgeons.

LYNN LEATHERWOOD of Gulfport has been certified as a diplomate of the American Board of Internal Medicine.

EDWARD LOWICKI of Jackson was guest speaker at a meeting of the Ostomy Association. His subject was "Costs Related to Ostomy Care and What to Do."

RONALD LUBRITZ of Hattiesburg was director of the Advanced Cryosurgery Forum of the American Academy of Dermatology in New Orleans.

JOHN LUCAS of UMC lectured at a meeting of the Shreveport (Louisiana) Ob-Gyn Society meeting.

ELDON MCCLAIN of Biloxi has been reelected as chief of staff at Biloxi Regional Medical Center.

MICHAEL E. MOSES of Gulfport has been elected chief of staff at Garden Park Community Hospital.

WILLIAM NICHOLAS of UMC participated in a site review at the Florida Affiliate, American Diabetes Association. He also spoke on menopause and osteoporosis to physicians in the Lake Charles, Louisiana area.

SESHADRI RAJU of UMC spoke during the Association of Surgeons meeting in Agra, India. He also presented a paper at the Southern Association for Vascular Surgery in Scottsdale, Arizona, and was on the faculty of the program of the Phlebology Society of America in New York.

ROBERT SCHMIDT of Biloxi has been reelected for a third term as president of the staff of Biloxi Regional Medical Center.

G. V. SMITH of Grenada was guest speaker at a meeting of the Grenada Lions Club. His topic was early detection of certain types of cancer.

AL STEELE of Jackson has been elected president of the medical staff at Doctors Hospital. BILLY WALKER was named president-elect.

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PERSONALS/Continued

DAVID THOMAS of UMC was moderator for a session of the Research in Geriatrics meeting in Jackson recently. He also presented a paper at a regional meeting in New Orleans of the Society for Research and Education in Primary Care Internal Medicine and was speaker on "Cost Containment and Health Policy" at the SREPCIM.

Urology Associates and Jackson Urological Clinic announce their consolidation and relocation to form Mississippi Urology Clinic P.A., 1421 North State Street, Jackson, MS 39202.

GEORGE C. WALKER of Starkville has been elected vice chairman of the board of The Bank of North Mississippi.

LAMAR WEEMS of UMC was speaker at a meeting in Newport Beach, California of the Society of Pelvic Surgeons.

RHONDA H. WILSON has associated with Meridian Medical Associates for the practice of internal medicine at 1525 22nd Avenue in Meridian.

H. E. WOOD of Gulfport has been named chief of staff for Gulf Coast Community Hospitals.

DEATHS

GUTTERMAN, JOHN S., Columbus. Born Hackensack, NJ, Dec. 9, 1954; M.D., State of Mexico University, Mexico, 1977; interned Hahnemann University, Philadelphia, PA, one year; anesthesiology residency, University of Tennessee, Memphis, 1981-83; died Feb. 19, 1987, age 32.

KERSH, CURTIS E., Rosedale. Born Charleston, MS, Aug. 6, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1978; died Feb. 19, 1987, age 34.

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Significantly reduced risk of endometrial hyperplasia

Endometrial hyperplasia was significantly reduced when progestin was added to PREMARIN therapy for more than ten days a month.¹⁻⁴ The risk of endometrial hyperplasia may also be reduced through cyclic administration of unopposed, low-dose PREMARIN.

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PREMARIN used alone does not adversely affect lipid levels. In fact, a clinical study has shown a significant increase in HDL cholesterol—from 49.7 mg/dL to 56.4 mg/dL—and decrease in LDL cholesterol—from 165.1 mg/dL to 138.1 mg/dL—after one year of therapy with PREMARIN, 0.625 mg.⁵

Low-dose control of menopausal symptoms*

PREMARIN effectively relieves vasomotor symptoms, such as hot flashes. When estrogen deficiency is limited to atrophic vaginitis, PREMARIN® (conjugated estrogens) Vaginal Cream restores the vaginal environment to its premenopausal state.

The most widely used, most extensively studied estrogen worldwide.

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*PREMARIN is indicated for moderate-to-severe vasomotor symptoms.

Please see following page for brief summary of prescribing information.

For moderate-to-severe
vasomotor symptoms

PREMARIN® (Conjugated Estrogens Tablets)



0.3 mg 0.625 mg 0.9 mg 1.25 mg 2.5 mg

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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS.)

PREMARIN® Brand of conjugated estrogens tablets, USP

PREMARIN® Brand of conjugated estrogens Vaginal Cream in a nonliquefying base

1. ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA.

Three independent case control studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case control studies reported that the risk of endometrial cancer in estrogen users was about 4 to 13 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semiannual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration; it therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equiestrogenic doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY

The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a non-steroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb reduction defects. One case control study estimated a 4 to 7-fold increased risk of limb reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mares urine. It contains estrone, equin, and 17 α -dihydroequin, together with smaller amounts of 17 α -estradiol, equin, and 17 α -dihydroequin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe vasomotor symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) **Osteoporosis (abnormally low bone mass).** Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae. PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use. The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens (see PRECAUTIONS). The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (See Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Long-term continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. There are now reports that estrogens increase the risk of carcinoma of the endometrium in humans. (See Boxed Warning.) At the present time there is no satisfactory evidence that estrogens given to postmenopausal women increase the risk of cancer of the breast, although a recent study has raised this possibility. There is a need for caution in prescribing estrogens for women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease, or abnormal mammograms. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

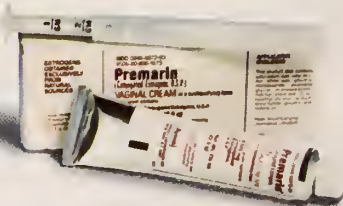
Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with

For atrophic vaginitis

PREMARIN® (Conjugated Estrogens)

Vaginal
Cream

0.625mg/g



caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Preexisting uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

- Increased sulfobromophthalain retention
- Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability
- Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG; free T4 concentration is unaltered.
- Impaired glucose tolerance
- Decreased pregnandiol excretion
- Reduced response to metyrapone test
- Reduced serum folate concentration
- Increased serum triglyceride and phospholipid concentration.

As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome, amenorrhea during and after treatment; increase in size of uterine fibromyomata; vaginal candidiasis, change in cervical erosion and in degree of cervical secretion; cystitis-like syndrome; tenderness, enlargement, secretion (of breasts); nausea, vomiting, abdominal cramps, bloating; cholestatic jaundice, chloasma or melasma which may persist when drug is discontinued; erythema multiforme, erythema nodosum, hemorrhagic eruption; loss of scalp hair, hirsutism, steepening of corneal curvature; intolerance to contact lenses; headache, migraine, dizziness, mental depression, chorea, increase or decrease in weight; reduced carbohydrate tolerance; aggravation of porphyria; edema; changes in libido.

ACUTE OVERDOSSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSEAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. *Given cyclically for short-term use only.* For treatment of moderate to severe vasomotor symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. *Given cyclically:* Female castration. Osteoporosis. Female castration—1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off).

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three-to-six month intervals.

Usual dosage range: 2 to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

References:

- Whitehead MI, Townsend PT, Pryse-Davies J, et al: Effects of estrogens and progestins on the biochemistry and morphology of the postmenopausal endometrium. *N Engl J Med* 1981;305:1599-1605.
- Patersen MEL, Wade-Evans T, Sturdee DW, et al: Endometrial disease after treatment with estrogens and progestogens in the climacteric. *Br Med J* 1980;280:822-824.
- Magos AL, Brinck M, Studd JWW, et al: Amenorrhea and endometrial atrophy with continuous oral estrogen and progestogen therapy in postmenopausal women. *Obstet Gynecol* 1985;67:496-499.
- Whitehead MI, Lane G, Siddle N, et al: Avoidance of endometrial hyperplasia in estrogen-treated postmenopausal women. *Semin Reprod Endocrinol* 1983;1:41-52.
- Barnes RB, Roy S, Lobo RA: Comparison of lipid and androgen levels after conjugated estrogen or depo-medroxyprogesterone acetate treatment in postmenopausal women. *Obstet Gynecol* 1985;66:216-219.

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Medico-Legal Brief

HCA Ordered to Divest Itself Of Ownership in Tennessee Hospitals

A federal appeals court has affirmed a Federal Trade Commission order requiring Hospital Corporation of America ("HCA") to divest itself of ownership or management interests in four Chattanooga-area hospitals acquired in 1981 and 1982, and to provide advance notification of any similar acquisition plans anywhere in the United States. *Hospital Corporation of America v. FTC*, ____ F.2d ____, No. 85-3185 (7th Cir., December 18, 1986).

The Commission held that HCA's acquisition of two corporations, through which it assumed ownership of two hospitals and contractual rights to manage two others, violated section 7 of the Clayton Act, 15 U.S.C. §18, which prohibits mergers and acquisitions of corporate stock or assets that may "substantially . . . lessen competition" or "tend to create a monopoly" in any line of commerce. Prior to the acquisitions HCA owned one hospital in Chattanooga. By virtue of the acquisitions, it owned or controlled five of the eleven hospitals in the Chattanooga area, making it the second largest provider of hospital services in a concentrated market in which the combined market share of the four largest firms had grown from 79 percent to 91 percent. The acquisitions increased HCA's share of the Chattanooga hospital services market from 14 percent to 26 percent. The FTC concluded that this increased level of concentration posed a significant threat to the interests of consumers because it made it easier for the firms remaining in the market to engage in collusion to force prices above the competitive level.

POSTGRADUATE CALENDAR

IRRITABLE BOWEL SYNDROME AND INFLAMMATORY BOWEL DISEASE

May 1-2

Holiday Inn Medical Center, Jackson

NUCLEAR MEDICINE UPDATE

May 2

University of Mississippi Medical Center

TOXICOLOGIC EMERGENCIES

May 15

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GRASS ROOTS POLITICS

(Continued from page 98)

profits have fallen to a level which threatens their ability to provide the most modern technology and services, and to substantially increase their political protests against unfair budget cuts. These are not easy tasks, but they are essential ones.

Trade associations can lead, coordinate and do a better job at their advocacy role, but the people at the grass roots level — nurses, technicians, doctors and patients — must provide the evidence and raise their voices in collective outrage. When push comes to shove in Washington, that's how things get done — pressure from home. The 1986 election was a collection of grass roots decisions, and the 1987 legislative agenda will be shaped by those same grass roots voters.

If the next Reagan budget treats Medicare as a "non-essential program" — and there is no reason now to expect this Administration to depart from its attitude of the past six years — then hospitals must be prepared to take their case to the public and the Congress with strong evidence that Medicare cuts have been real, and are being felt.



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Coping with genital herpes is rarely easy. For some, the worst part is the pain and discomfort of frequent attacks — month after month, year after year. For others, the emotional burden presents a more difficult problem, leading to social isolation, anxiety, and diminished self-esteem.

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Although your patients have to live with herpes, they shouldn't have to suffer. Daily therapy with ZOVIRAX CAPSULES can help free them from the cycle of recurrent genital herpes. For many, one capsule three times a day can suppress recurrences completely while on therapy.

Generally well tolerated

Daily therapy with ZOVIRAX CAPSULES is generally well tolerated. The most frequent adverse reactions reported during clinical trials were headache, diarrhea, nausea/vomiting, vertigo, and arthralgia.

The physical and emotional difficulties posed by genital herpes are unique for each patient. The frequency and severity of recurrent episodes, as well as the emotional impact of the disease, should be considered when selecting daily therapy with ZOVIRAX CAPSULES.

*Please see brief summary of
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Brief Summary

INDICATIONS AND USAGE: Zovirax Capsules are indicated for the treatment of initial episodes and the management of recurrent episodes of genital herpes in certain patients.

The severity of disease is variable depending upon the immune status of the patient, the frequency and duration of episodes, and the degree of cutaneous or systemic involvement. These factors should determine patient management, which may include symptomatic support and counseling only, or the institution of specific therapy. The physical, emotional and psychosocial difficulties posed by herpes infections as well as the degree of debilitation, particularly in immunocompromised patients, are unique for each patient, and the physician should determine therapeutic alternatives based on his or her understanding of the individual patient's needs. Thus Zovirax Capsules are not appropriate in treating all genital herpes infections. The following guidelines may be useful in weighing the benefit/risk considerations in specific disease categories:

First Episodes (primary and nonprimary infections — commonly known as initial genital herpes):

Double-blind, placebo-controlled studies have demonstrated that orally administered Zovirax significantly reduced the duration of acute infection (detection of virus in lesions by tissue culture) and lesion healing. The duration of pain and new lesion formation was decreased in some patient groups. The promptness of initiation of therapy and/or the patient's prior exposure to Herpes simplex virus may influence the degree of benefit from therapy. Patients with mild disease may derive less benefit than those with more severe episodes. In patients with extremely severe episodes, in which prostration, central nervous system involvement, urinary retention or inability to take oral medication require hospitalization and more aggressive management, therapy may be best initiated with intravenous Zovirax.

Recurrent Episodes:

Double-blind, placebo-controlled studies in patients with frequent recurrences (6 or more episodes per year) have shown that Zovirax Capsules given for 4 to 6 months prevented or reduced the frequency and/or severity of recurrences in greater than 95% of patients. Clinical recurrences were prevented in 40 to 75% of patients. Some patients experienced increased severity of the first episode following cessation of therapy; the severity of subsequent episodes and the effect on the natural history of the disease are still under study.

The safety and efficacy of orally administered acyclovir in the suppression of frequent episodes of genital herpes have been established only for up to 6 months. Chronic suppressive therapy is most appropriate when, in the judgement of the physician, the benefits of such a regimen outweigh known or potential adverse effects. In general, Zovirax Capsules should not be used for the suppression of recurrent disease in mildly affected patients. Unanswered questions concerning the human relevance of *in vitro* mutagenicity studies and reproductive toxicity studies in animals given very high doses of acyclovir for short periods (see Carcinogenesis, Mutagenesis, Impairment of Fertility) should be borne in mind when designing long-term management for individual patients. Discussion of these issues with patients will provide them the opportunity to weigh the potential for toxicity against the severity of their disease. Thus, this regimen should be considered only for appropriate patients and only for six months until the results of ongoing studies allow a more precise evaluation of the benefit/risk assessment of prolonged therapy.

Limited studies have shown that there are certain patients for whom intermittent short-term treatment of recurrent episodes is effective. This

approach may be more appropriate than a suppressive regimen in patients with infrequent recurrences.

Immunocompromised patients with recurrent herpes infections can be treated with either intermittent or chronic suppressive therapy. Clinically significant resistance, although rare, is more likely to be seen with prolonged or repeated therapy in severely immunocompromised patients with active lesions.

CONTRAINDICATIONS: Zovirax Capsules are contraindicated for patients who develop hypersensitivity or intolerance to the components of the formulation.

WARNINGS: Zovirax Capsules are intended for oral ingestion only.

PRECAUTIONS: General: Zovirax has caused decreased spermatogenesis at high doses in some animals and mutagenesis in some acute studies at high concentrations of drug (see PRECAUTIONS — Carcinogenesis, Mutagenesis, Impairment of Fertility). The recommended dosage and length of treatment should not be exceeded (see DOSAGE AND ADMINISTRATION).

Exposure of Herpes simplex isolates to acyclovir *in vitro* can lead to the emergence of less sensitive viruses. The possibility of the appearance of less sensitive viruses in man must be borne in mind when treating patients. The relationship between the *in vitro* sensitivity of Herpes simplex virus to acyclovir and clinical response to therapy has yet to be established.

Because of the possibility that less sensitive virus may be selected in patients who are receiving acyclovir, all patients should be advised to take particular care to avoid potential transmission of virus if active lesions are present while they are on therapy. In severely immunocompromised patients, the physician should be aware that prolonged or repeated courses of acyclovir may result in selection of resistant viruses which may not fully respond to continued acyclovir therapy.

Drug Interactions: Co-administration of probenecid with intravenous acyclovir has been shown to increase the mean half-life and the area under the concentration-time curve. Urinary excretion and renal clearance were correspondingly reduced.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Acyclovir was tested in lifetime bioassays in rats and mice at single daily doses of 50, 150 and 450 mg/kg given by gavage. There was no statistically significant difference in the incidence of tumors between treated and control animals, nor did acyclovir shorten the latency of tumors. In 2 *in vitro* cell transformation assays, used to provide preliminary assessment of potential oncogenicity in advance of these more definitive life-time bioassays in rodents, conflicting results were obtained. Acyclovir was positive at the highest dose used in one system and the resulting morphologically transformed cells formed tumors when inoculated into immunosuppressed, syngeneic, weanling mice. Acyclovir was negative in another transformation system considered less sensitive.

In acute studies, there was an increase, not statistically significant, in the incidence of chromosomal damage at maximum tolerated parenteral doses of 100 mg/kg acyclovir in rats but not Chinese hamsters; higher doses of 500 and 1000 mg/kg were clastogenic in Chinese hamsters. In addition, no activity was found after 5 days dosing in a dominant lethal study in mice. In 6 of 11 microbial and mammalian cell assays, no evidence of mutagenicity was observed. At 3 loci in a Chinese hamster ovary cell line, the results were inconclusive. In 2 mammalian cell assays (human lymphocytes and L5178Y mouse lymphoma cells *in vitro*), positive responses for mutagenicity and chromosomal damage occurred, but only at concentrations at least 400 times the acyclovir plasma levels achieved in man.

Acyclovir has not been shown to impair fertility or reproduction in mice (450 mg/kg/day, p.o.) or in rats (25 mg/kg/day, s.c.). At 50 mg/kg/day s.c. in the rat, there was a statistically significant increase in post-implantation loss, but no concomitant decrease in litter size. In female rabbits treated subcutaneously with acyclovir subsequent to mating, there was a statistically significant decrease in implantation efficiency but no concomitant decrease in litter size at a dose of 50 mg/kg/day. No effect upon implantation efficiency was observed when the same dose was administered intravenously. In a rat peri- and postnatal study at 50 mg/kg/day s.c., there was a statistically significant decrease in the group mean numbers of corpora lutea, total implantation sites and live fetuses in the F₁ generation. Although not statistically signifi-

cant, there was also a dose related decrease in group mean numbers of live fetuses and implantation sites at 12.5 mg/kg/day and 25 mg/kg/day, s.c. The intravenous administration of 100 mg/kg/day, a dose known to cause obstructive nephropathy in rabbits, caused a significant increase in fetal resorptions and a corresponding decrease in litter size. However, at a maximum tolerated intravenous dose of 50 mg/kg/day in rabbits, there were no drug-related reproductive effects.

Intraperitoneal doses of 320 or 80 mg/kg/day acyclovir given to rats for 1 and 6 months, respectively, caused testicular atrophy. Testicular atrophy was persistent through the 4-week post-dose recovery phase after 320 mg/kg/day; some evidence of recovery of sperm production was evident 30 days postdose. Intravenous doses of 100 and 200 mg/kg/day acyclovir given to dogs for 31 days caused aspermatogenesis. Testicles were normal in dogs given 50 mg/kg/day, i.v. for one month.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Acyclovir was not teratogenic in the mouse (450 mg/kg/day, p.o.), rat (50 mg/kg/day, s.c.) or rabbit (50 mg/kg/day, s.c. and i.v.). There are no adequate and well-controlled studies in pregnant women. Acyclovir should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus. Although acyclovir was not teratogenic in animal studies, the drug's potential for causing chromosome breaks at high concentration should be taken into consideration in making this determination.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Zovirax is administered to a nursing woman. In nursing mothers, consideration should be given to not using acyclovir treatment or discontinuing breastfeeding.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS — Short-Term

Administration: The most frequent adverse reactions reported during clinical trials were nausea and/or vomiting in 8 of 298 patient treatments (2.7%) and headache in 2 of 298 (0.6%). Less frequent adverse reactions, each of which occurred in 1 of 298 patient treatments (0.3%), included diarrhea, dizziness, anorexia, fatigue, edema, skin rash, leg pain, inguinal adenopathy, medication taste and sore throat.

Long-Term Administration: The most frequent adverse reactions reported in studies of daily therapy for 3 to 6 months were headache in 33 of 251 patients (13.1%), diarrhea in 22 of 251 (8.8%), nausea and/or vomiting in 20 of 251 (8.0%), vertigo in 9 of 251 (3.6%), and arthralgia in 9 of 251 (3.6%). Less frequent adverse reactions, each of which occurred in less than 3% of the 251 patients (see number of patients in parentheses), included skin rash (7), insomnia (4), fatigue (7), fever (4), palpitations (1), sore throat (2), superficial thrombophlebitis (1), muscle cramps (2), paronychia (1), menstrual abnormality (4), acne (3), lymphadenopathy (2), irritability (1), accelerated hair loss (1), and depression (1).

DOSAGE AND ADMINISTRATION: Treatment of initial genital herpes: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 10 days (total 50 capsules).

Chronic suppressive therapy for recurrent disease: One 200 mg capsule 3 times daily for up to 6 months. Some patients may require more drug, up to one 200 mg capsule 5 times daily for up to 6 months.

Intermittent Therapy: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 5 days (total 25 capsules). Therapy should be initiated at the earliest sign or symptom (prodrome) of recurrence.

Patients With Acute or Chronic Renal Impairment: One 200 mg capsule every 12 hours is recommended for patients with creatinine clearance ≤ 10 ml/min/1.73 m².

HOW SUPPLIED: Zovirax Capsules (blue, opaque) containing 200 mg acyclovir and printed with "Wellcome ZOVIRAX 200". Bottles of 100 (NDC-0081-0991-55) and unit dose pack of 100 (NDC-0081-0991-56).

Store at 15°-30°C (59°-86°F) and protect from light.

*In controlled studies, recurrences were totally prevented for 4 to 6 months in up to 75% of patients.



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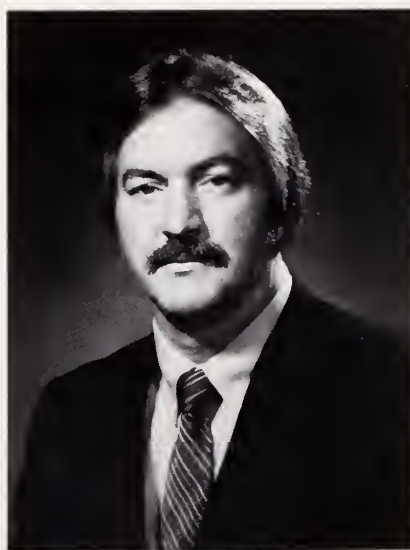
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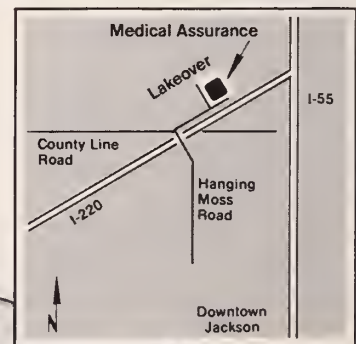
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NEWSLETTER

May 1987

Dear Doctor:

The combined use of education, screening and contact tracing could eliminate or largely reduce the transmission of AIDS, but only through an "immense concerted effort" by a broad spectrum of health and community leaders, a study in the March 13 JAMA reports. Without such an effort, the disease "will continue to kill ever-increasing numbers of Americans," the authors conclude.

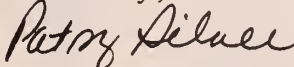
An accompanying editorial called upon physicians to counsel patients about the sexual transmission of the virus and to frankly discuss guidelines for safe sex. "We must take care of each other if we are to take care of ourselves," said Senior Editor Bruce Dan, M.D.

The number of women in the U.S. who have acquired AIDS through heterosexual contact with an infected partner has more than doubled since 1982 (increasing from 12% to 26%), according to a report in the April 17 JAMA. The proportion of women in the IV drug use category has declined. The report also notes that 80% of women with AIDS are of childbearing age, and the rise in the number of women with AIDS in most risk categories was paralleled by a rise in AIDS in children born to mothers in these risk groups. The study says it is difficult to target a large proportion of women at risk for heterosexual transmission of AIDS. "Therefore," it says, "from a public health point of view, it is important to educate all women about their risk of sexually acquired AIDS and to encourage risk-reducing sexual behavior."

MSMA's Speakers Bureau on AIDS can help in the educational effort that is necessary to stop the spread of the epidemic. If you know of an organization or group which would be interested in learning the facts about AIDS and its prevention, please contact the MSMA headquarters. We can arrange for a physician speaker to give a presentation to a group in your community.

This issue of the Journal includes information about the program for the 119th Annual Session. The schedule includes a number of important policy meetings, lots of fellowship events, excellent speakers, and all the atmosphere and entertainment the Gulf Coast offers. Plan now to be in Biloxi June 3-7 for your 119th Annual Session.

Sincerely,



Patsy Silver
Managing Editor

MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 21-25, 1987, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 119th Annual Session, June 3-7, 1987, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 29-August 1, 1987, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrick, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. R. Ray Lyle, Secy., P.O. Box 1507, Starkville, MS 39759. Counties: Clay, Oktibbeha,

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

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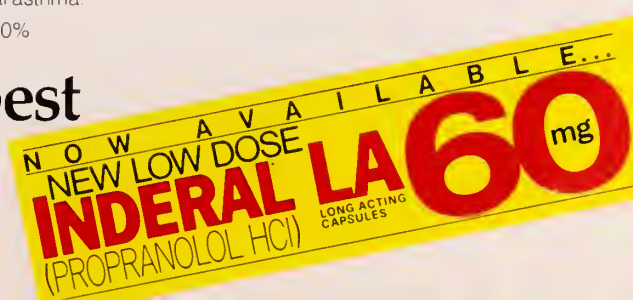
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Please see next page for brief summary of prescribing information

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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 60 mg, 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. Inderal is a nonselective, beta-adrenergic receptor-blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor-stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

Inderal LA Capsules (60, 80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal Tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

Inderal LA should not be considered a simple mg-for-mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal, as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta blockade for a 24-hour period.

INDICATIONS AND USAGE. **Hypertension:** Inderal LA is indicated in the management of hypertension. It may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: Inderal LA is indicated for the long-term management of patients with angina pectoris.

Migraine: Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first-degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

WARNINGS. **CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or Inderal should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned, the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Inderal (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, eg, dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers. **DIABETES AND HYPOGLYCEMIA.** Beta blockers should be used with caution in diabetic patients if a beta-blocking agent is required. Beta blockers may mask tachycardia occurring with hypoglycemia, but other manifestations such as dizziness and sweating may not be significantly affected. Following insulin-induced hypoglycemia, propranolol may cause a delay in the recovery of blood glucose to normal levels.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol may change thyroid function tests, increasing T₄ and reverse T₃, and decreasing T₃.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. **GENERAL.** Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should

be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncope, attacks, or orthostatic hypotension.

Caution should be exercised when patients receiving a beta blocker are administered a calcium-channel-blocking drug, especially intravenous verapamil, for both agents may depress myocardial contractility or atrioventricular conduction. On rare occasions, the concomitant intravenous use of a beta blocker and verapamil has resulted in serious adverse reactions, especially in patients with severe cardiomyopathy, congestive heart failure or recent myocardial infarction.

Aluminum hydroxide gel greatly reduces intestinal absorption of propranolol.

Ethanol slows the rate of absorption of propranolol.

Phenyltol, phenobarbital, and rifampin accelerate propranolol clearance.

Chlorpromazine, when used concomitantly with propranolol, results in increased plasma levels of both drugs.

Antipyrine and lidocaine have reduced clearance when used concomitantly with propranolol.

Thyroxine may result in a lower than expected T₃ concentration when used concomitantly with propranolol.

Cimetidine decreases the hepatic metabolism of propranolol, delaying elimination and increasing blood levels.

Theophylline clearance is reduced when used concomitantly with propranolol.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. Inderal is excreted in human milk. Caution should be exercised when Inderal (propranolol HCl) is administered to a nursing woman.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands; thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System. Light-headedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy; visual disturbances, hallucinations, vivid dreams, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics. For immediate formulations, fatigue, lethargy and vivid dreams appear dose related.

Gastrointestinal. Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory. Bronchospasm.

Hematologic. Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal Tablets to Inderal LA Capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg-for-mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary, especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—Dosage must be individualized. The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—Dosage must be individualized. Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three- to seven-day intervals until optimal response is obtained. Although individual patients may respond at any dosage level, the average optimal dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—Dosage must be individualized. The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimal migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximal dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily.

PEDIATRIC DOSAGE—At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

REFERENCES:

1. Inderal LA National Compliance Evaluation Program. Data on file, Ayerst Laboratories.
2. Ravid M, Lang R, Juttn I: The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985; 145:1321-1323.

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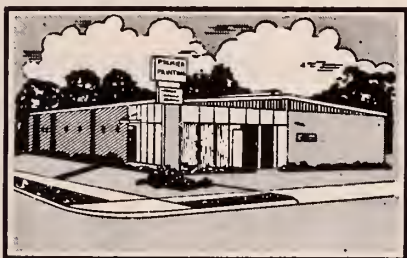
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DATELINE

Worldwide AIDS Outlook Reveals Sobering Totals

Chicago, IL - World Health Organization officials predict the number of AIDS cases worldwide may reach 500,000 to 3 million within the next five years. The estimated number of people exposed to the virus may climb to 100 million. According to news reports, the number of countries reporting AIDS cases (91) has doubled since last year. Countries across the world are stepping up public information efforts.

Toll-Free Number For Donor Inquiries

Jackson, MS - A toll-free number is available to the public for questions about organ donation. By calling 1-800-843-1166, persons may talk with someone who will answer questions directly, send information, or arrange for speakers at schools and club meetings. The service is provided by UMC and Mississippi Lions Eye Bank to increase awareness of organ donation and its role in heart, lung, kidney, liver, cornea and bone transplantation.

Eating Disorders Clinic Offers Free Series

Jackson, MS - "Coping with Food Cravings" is the topic of the next meeting (May 21) in a series offered by the eating disorders program at University Medical Center. The educational and support group meetings are for people with eating disorders and their families. Sessions focus on anorexia, bulimia, weight control and poor eating habits. Meetings are held monthly and are free of charge. For information, call 984-5805.

AMA Slates Conference On Impaired Physicians

Chicago, IL - The AMA will host a national conference on impaired physicians and other health professionals October 8-11, 1987 at the Drake Hotel in Chicago. This is the eighth in a series of conferences sponsored by the AMA since release 15 years ago of its landmark report on impaired physicians. The meeting will focus on the need for increased collaborative efforts. For information, call 312/546-5079.

Mississippi Medical News Notes

Jackson, MS - News notes: June 1 is the scheduled completion date for MSMA's construction project at 735 Riverside Drive. ...Appointments are now being scheduled for photographs for MSMA's 1988 pictorial Membership Directory...Response to the association's electronic billing system has been very favorable. Contact the MSMA headquarters office for further information about Medical Payment System.

Counsel to Authors

THE JOURNAL welcomes manuscripts which should be submitted to the Editors at 735 Riverside Drive, Jackson, MS 39216, in original and at least one duplicate copy. They must be typewritten double spaced on 8½ by 11-inch white paper. **Brief manuscripts (about 2,500 words or 8 pages) will be given preference over longer articles.**

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All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list. Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

may not be made. The galley proof should be returned by the author within 48 hours from receipt, and no further changes may be made.

Illustrations consist of all material which cannot be set into type such as photographs, line drawings, graphs, charts, and tracings. Illustrations should be submitted separately from text copy. Figures and drawings should be professionally prepared with black ink on white paper. Photographs should be of high resolution, unmounted, untrimmed, glossy prints. Each must be clearly identified. No charges are made to authors for up to four illustration engravings. More are not permitted unless voted on by two editors and extra costs must be absorbed by the author.

Illustrations must be numbered and cited in the text. Legends, not exceeding 40 words and preferably shorter, must accompany each illustration, typed double spaced on separate sheets. The following information should appear on a gummed label affixed to the back of each illustration: Figure number, manuscript title, author's name, and arrow indicating top of the illustration.

In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material.

A thesis summary of 75 to 100 words must accompany each manuscript.

Reprints may be obtained at cost plus shipping charges from the association and **should be ordered prior to publication.** The JOURNAL reserves the right to decline any manuscript. Authors should avoid placing subheads in the text, and the Editors reserve the prerogative of writing and inserting subheads according to JOURNAL style. — *The Editors.*

In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by all authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*

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Respiratory tract infections caused by *Streptococcus pneumoniae* and group A β -hemolytic streptococci (Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. Keflet is generally effective in the eradication of streptococci from the nasopharynx, however, substantial data establishing the efficacy of Keflet in the subsequent prevention of rheumatic fever are not available at present.)

Otitis media due to *S. pneumoniae*, *Haemophilus influenzae*, staphylococci, streptococci, and *Nisseria catarrhalis*.

Skin and skin structure infections caused by staphylococci and/or streptococci.

Bone infections caused by staphylococci and/or *Proteus mirabilis*.
Genitourinary tract infections, including acute prostatitis, caused by *Escherichia coli*, *P. mirabilis*, and *Klebsiella* sp.

Note:—Culture and susceptibility tests should be initiated prior to and during therapy. Renal function studies should be performed when indicated.

Contraindication: Keflet is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: BEFORE CEPHALEXIN THERAPY IS INSTITUTED, CAREFUL INQUIRY SHOULD BE MADE CONCERNING PREVIOUS HYPERSENSITIVITY REACTIONS TO CEPHALOSPORINS AND PENICILLIN. CEPHALOSPORIN C DERIVATIVES SHOULD BE GIVEN CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS.

SERIOUS ACUTE HYPERSENSITIVITY REACTIONS MAY REQUIRE EPINEPHRINE AND OTHER EMERGENCY MEASURES.

There is some clinical and laboratory evidence of partial cross-allergenicity of the penicillins and the cephalosporins. Patients have been reported to have had severe reactions (including anaphylaxis) to both drugs.

Any patient who has demonstrated some form of allergy, particularly to drugs, should receive antibiotics cautiously. No exception should be made with regard to Keflet.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Usage in Pregnancy:—Safety of this product for use during pregnancy has not been established.

Precautions: **General:**—Patients should be followed carefully so that any side effects or unusual manifestations of drug idiosyncrasy may be detected. If an allergic reaction to Keflet occurs, the drug should be discontinued and the patient treated with the usual agents (eg, epinephrine or other pressor amines, antihistamines, or corticosteroids).

Prolonged use of Keflet may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Keflet should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

As a result of administration of Keflet, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with ClinTest[®] tablets but not with Tes-Tape[®] (Glucose Enzymatic Test Strip, USP; Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B:—The daily oral administration of cephalexin to rats in doses of 250 or 500 mg/kg prior to and during pregnancy, or to rats and mice during the period of organogenesis only, had no adverse effect on fertility, fetal viability, fetal weight, or litter size. Note that the safety of cephalexin during pregnancy in humans has not been established.

Cephalexin showed no enhanced toxicity in weanling and newborn rats as compared with adult animals. Nevertheless, because the studies in humans cannot rule out the possibility of harm, Keflet should be used during pregnancy only if clearly needed.

Nursing Mothers:—The excretion of cephalexin in the milk increased up to 4 hours after a 500 mg dose, the drug reached a maximum level of 4 μ g/mL, then decreased gradually, and had disappeared 8 hours after administration. Caution should be exercised when Keflet is administered to a nursing woman.

Adverse Reactions: **Gastrointestinal:** Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely. The most frequent side effect has been diarrhea. It was very rarely severe enough to warrant cessation of therapy. Dyspepsia and abdominal pain have also occurred. As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.

Hypersensitivity:—Allergic reactions in the form of rash, urticaria, angioedema, and, rarely, erythema multiforme, Stevens-Johnson Syndrome, or toxic epidermal necrolysis have been observed. These reactions usually subsided upon discontinuation of the drug. Anaphylaxis has also been reported.

Other reactions have included genital and anal pruritus, genital moniliasis, vaginitis and vaginal discharge, dizziness, fatigue, and headache. Eosinophilia, neutropenia, thrombocytopenia, and slight elevations in SGOT and SGPT have been reported.

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ORIGINAL PAPERS

Arthroscopic Knee Ligament Reconstruction

GENE R. BARRETT, M.D.

Jackson, Mississippi

INJURY TO THE ligaments about the knee is very common and often a very disabling problem. In the past, repair or reconstruction of these ligaments, particularly the anterior cruciate ligament, has involved large incisions and extended hospital stay with prolonged rehabilitation. Many times this would end in residual stiffness and an unsatisfactory result. In short, the cure was often more painful and disabling than the instability.

With the introduction of the arthroscope many of the problems with knee surgery have been alleviated.^{1,2} Until recently the arthroscope has been utilized only for meniscus problems, debridements and removal of loose bodies. Reconstruction of ligaments of the knee joint, basically the anterior cruciate ligament, utilizing the arthroscope is now a very real concept. Minimal incisions can now be utilized to reconstruct the anterior cruciate ligament without opening the joint itself. This seems to eliminate many of the complications associated with open reconstruction. Immediate motion after arthroscopic reconstruction has prevented the stiffness and much of the postoperative pain formerly associated with rehabilitation.

I have used the following technique for the past year. The results, although preliminary, seem to be much improved over the open reconstruction at a similar stage in rehabilitation.

Dr. Barrett is engaged in the private practice of knee surgery and sports medicine at Mississippi Sports Medicine and Orthopaedic Center in Jackson, MS.

Reconstruction and repair of injured ligaments about the knee through the arthroscope makes it possible to reduce prolonged hospital stay and rehabilitation, according to the author. He reports eleven consecutive cases of arthroscopic reconstruction, and notes that followup examinations showed marked increase in stability in all eleven patients, who also had experienced no major complications.

Surgical Technique

Under general anesthesia and sterile conditions the leg is prepped for an arthroscopic examination. An inflow cannula is introduced into the area above the patella and the knee is filled with saline. The arthroscope is then introduced through an anterior lateral portal, allowing diagnostic examination of the knee. Any torn menisci, chondral defects or loose bodies are removed at this time.

An extensive notch plasty is done utilizing a burr system. This widens the intracondylar notch to facilitate patella tendon graft placement. This graft replaces the old anterior cruciate ligament. Special guides are used to make a large drill hole in the lateral femoral condyle and the medial tibial plateau in exactly the position of the old anterior cruciate

ligament. A free patella tendon graft is then harvested from the central portion of the patella tendon utilizing $\frac{3}{4}$ inch incision on the medial tibial flare. Under arthroscopic control this is then passed through the tibial tunnel, through the middle of the knee (intracondylar notch) in the same route as the anterior cruciate ligament and out the lateral femoral tunnel (see Figure 1). The graft is secured with a staple on the tibial area and a large toothed washer and screw on the lateral femoral condyle. This screw also secures the iliotibial tract, thereby producing a tenodesis of this structure. This lateral tenodesis augments or supports the intra-articular patella tendon reconstruction. Fixation in this manner allows immediate postoperative motion. The knee is taken through a full range of motion on the operating table and the graft is observed for impingement or problems. The lateral portion of the procedure is accomplished through approximately a two-inch incision. Postoperatively the patient is placed on a constant passive motion machine in the recovery room and a postoperative brace is applied which is set from 40 degrees of extension to full flexion. In daily physical therapy the brace is removed, allowing the knee to go to passive extension. At approximately three weeks the patient has obtained almost full range of motion and is bicycling in a brace. At six weeks the patient is allowed to walk full weight-bearing on the leg in the brace, and a more aggressive rehabilitation is begun.

Materials and Methods

Over the past year, eleven consecutive patients with chronic anterior cruciate instability of the knee



Figure 1

TABLE I
MECHANISM OF INJURY

Football	7
Motorcycle	3
Fall	1

TABLE II
PREVIOUS SURGERY

Diagnostic Arthroscopy	1
Arthroscopic Medial Meniscectomy	1
Arthroscopic Lateral Meniscectomy	1
Open Medial Ligament Repair	1

TABLE III
ADDITIONAL SURGERY AT RECONSTRUCTION

Arthroscopic Partial Medial Meniscectomy	2
Arthroscopic Partial Lateral Meniscectomy	2
Arthroscopic Medial Meniscus Repair	1

have undergone arthroscopic reconstruction in the manner just described. These patients experienced instability for an average of 40 months prior to surgery with a range 6 to 13 years. All of the patients in this series were males. The series involved five right knees and six left knees. The average age of the population was 20 years with a range of 15 to 30 years.

Seven of the injuries occurred during high school football. Three occurred as the result of motorcycle accidents and one was caused by a fall down an embankment (see Table I). Four patients had previous surgery prior to presentation to the clinic. One had a diagnostic arthroscopy; one had an arthroscopic medial meniscectomy; and one had an arthroscopic lateral meniscectomy (see Table II). One patient had a previous open medial collateral ligament repair thirteen years prior to presentation.³ All of the patients demonstrated at least a 2+ instability on a scale of 1 to 3. The pivot shift test and anterior Drawer test were at least 2+ in all patients. The Lachman test was grossly positive in all eleven patients.⁴

All eleven of the patients underwent the previ-

ously described arthroscopic anterior cruciate ligament reconstruction utilizing the central 1/3 of the patella tendon and a lateral tenodesis. In addition two patients had an arthroscopic partial medial meniscectomy. One had an arthroscopic medial meniscus repair and two patients had arthroscopic partial lateral meniscectomies (see Table III). All were treated according to the described protocol of early motion and bracing.

Results

Although the results are preliminary, they seem to be much improved over those obtained with the open procedure. Followup at the present time ranges from seven months to twelve months with an average of 8.3 months. Clinically all of the knees are stable. There is a good solid end point to the Lachman test and the anterior Drawer test is decreased to at least 1+. The pivot shift test, which is the most disabling when a patient tries to cut, is completely obliterated in all the patients.

In this series of 11 reconstructions there were no infections and no joint ankylosis.

Discussion

Repair and reconstruction of ligaments about the knee, particularly the anterior cruciate ligament, in the past have required large incisions and prolonged rehabilitation.^{5,6} Arthroscopic repair and augmentation of the anterior cruciate ligament has been described since 1983 and has been greatly improved upon since that time.² This reconstruction can now be accomplished quite easily, eliminating many of the problems associated with open reconstruction. Attention to detail and basic surgical technique, however, still must be emphasized. The soft tissues and the free graft must be handled gently and with

care. Due to the undermining of the skin as involved in the procedure, the skin edges must be carefully retracted. The notch plasty is probably the most critical step in the procedure. Enough room must be made in the middle of the knee for the patella tendon graft. If this is not accomplished, then full range of motion will never be obtained. This motion must be checked on the operating table to assure adequate extension. The firm fixation with a staple and the large screw allow strong tissue fixation and immediate motion, thereby eliminating many of the problems of stiffness that have accompanied this procedure in the past.

In summary, arthroscopic reconstruction of the anterior cruciate ligament can be accomplished easily with a much more comfortable postoperative course and rehabilitation. Hospital stay has been cut considerably. Reconstructions certainly seem to be as good as or better than the open type of reconstruction. ★★★

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Management of Ureteral Obstruction from Endometriosis

MICHEL E. RIVLIN, M.D., Moderator

G. RODNEY MEEKS, M.D., Series Coordinator

DR. RIVLIN: A 23-year-old, nulliparous black woman was seen initially at age 21 with a three-year history of lower abdominal pain, dysmenorrhea, menometrorrhagia and dyspareunia. This was treated intermittently with antibiotics and was at first partially relieved by oral contraceptives, but symptoms returned in spite of these medications. What management is indicated for young women with dysmenorrhea and lower abdominal pain?

DR. STEWART: A full history inclusive of a sexual history together with physical examination is essential. Endometriosis, pelvic inflammatory disease, congenital anomalies of the genital tract and if you believe in it, pelvic congestion syndrome should be considered. Usually I stop there and follow every 3-6 months while prescribing a prostaglandin inhibitor; if contraception is needed, I will prescribe oral contraceptives.

DR. RIVLIN: What are your indications for diagnostic laparoscopy?

DR. WELCH: If the patient does not respond or if there is infertility or if the pain is incapacitating, laparoscopy is indicated. Laparoscopy is also indicated prior to the administration of danazol for a suspected case of endometriosis. However, in patients such as these, you can expect a totally negative laparoscopy in about 50%.

DR. RIVLIN: A diagnostic laparoscopy showed "tubo-ovarian abscesses, endometriosis, and pelvic fibrosis." Danazol was initiated, but soon discontinued by the patient. She returned with similar com-

Panelists: Edsel F. Stewart, M.D., and Jerry W. Welch, M.D., private practitioners from McComb and Laurel, respectively; and Ronald P. Krueger, M.D., from the Division of Urology, Department of Surgery, University Medical Center, Jackson.

plaints two years later, and was then thought to have a left adnexal mass. Workup of the mass included a barium enema, which was negative and an IVP which showed a left hydronephrosis. Pelvic sonography confirmed distension of the left collecting system (see Figure 1). There was no history of hematuria, calculi or urinary infection. At what point in a patient with endometriosis would an IVP come to mind?

DR. WELCH: If there was hematuria or if pelvic examination indicated uterosacral involvement of sufficient degree to possibly involve the ureter or if an adnexal mass was present I would order an IVP.

DR. RIVLIN: She was then referred to the University of Mississippi Medical Center. Pelvic examination revealed extensive uterosacral nodularity, a fixed retroverted uterus and marked tenderness in all areas of the pelvis. Creatinine value was 1.2 mg/ml; leukocyte count, 13,000/ml³; and uric acid value, 4.2 mg/ml. A voiding cystourethrogram was normal without reflux. A renal scan indicated 73% renal function on the right and 27% on the left. A retrograde pyelogram demonstrated intramural narrowing of the distal segment of the left ureter. A ureteric catheter was passed beyond the obstruction



Figure 1. Markers on this ultrasound scan demonstrate the distended left ureter.

and left in-situ for five days. Creatinine clearance on the left side was 5.5 ml/minute, from the bladder it was 48 ml/minute. In view of the previous laparoscopic findings, how could we judge whether endometriosis or pelvic inflammatory disease was the major problem?

DR. STEWART: This can be very difficult, especially in the chronic state, since the symptoms and the clinical findings are so similar in both these common conditions. In an acute attack of salpingitis, the diagnosis is much easier of course. Sometimes a therapeutic trial is worthwhile, using antibiotics or birth control pills. The contraceptive pill is useful for secondary as well as primary dysmenorrhea. However, the practical way to make the diagnosis is by laparoscopy.

DR. RIVLIN: What changes follow obstruction of the urinary collecting system?

DR. KRUEGER: In terms of function, there is a loss of concentrating ability within hours, followed by a loss of ability to acidify within a few days. Glomerular filtration decreases within a few days

to a few weeks. Anatomically, the most distal portion of the renal collecting system dilates first, within several days, with more proximal changes occurring later. With complete obstruction, 30% of total glomerular filtration is lost within a week, 85% by two weeks, and 100% by six weeks. Recovery of renal function depends on the degree and duration of obstruction, the patient's age and whether infection occurs. Recovery is worse in children and the aged. Fortunately less than 10% of patients with ureteric obstruction become infected. Recovery takes time, for instance after two weeks of obstruction, 30% recovery can be expected by five weeks after relief of obstruction and 70% by six months. With four weeks, one can anticipate 30% recovery, but it takes up to four months and with six weeks, no recovery can be anticipated. Other complications of obstruction include stone formation, hypertension and, rarely, polycythemia. Postobstructive diuresis only occurs following relief of bilateral obstruction. This woman still had renal function present and therefore the obstruction could not have been complete.

DR. RIVLIN: What management is recommended for endometriosis involving the urinary tract?

DR. WELCH: Standard management of endometriosis obstructing the ureter is by definitive surgery with total abdominal hysterectomy, bilateral salpingo-oophorectomy, resection of endometriosis, and relief of the ureteric obstruction. When child-bearing must be preserved, management may have to be compromised with conservative endometriosis surgery and relief of the obstruction followed by periodic surveillance of urinary integrity.

DR. RIVLIN: She did want children and we were still uncertain whether she had endometriosis, ligneous cellulitis, tubo-ovarian infection or a combination of these conditions. Therefore she was treated initially medically with broad spectrum antibiotics and danazol, 800 mg daily. This resulted in marked symptomatic improvement. Two months later she was nontender and had no complaints although uterosacral nodularity was unchanged. Repeat IVP was unaltered, however, and she was therefore taken to surgery by the urologist.

DR. KRUEGER: The left ureter was exposed via an extraperitoneal approach. It was encased in dense fibrous tissue near its entry into the bladder. The ureter was transected and reimplanted into the bladder after a psoas hitch. Histology confirmed the presence of endometriosis in the fibrous tissue adjacent to the obstructed ureter (see Figure 2). Two months after surgery, IVP indicated only minimal dilatation of the left collecting system. Renal scan and renal function five months after surgery were

unchanged although the left kidney was smaller.

DR. RIVLIN: This patient is now in her sixth month of danazol therapy. How should she be managed at this stage?

DR. STEWART: Make quite sure that there are no other infertility features, that is to say, at least check out the male factor with a semen analysis. Laparoscopy at this time would also indicate, not only the situation with the endometriosis, but also the state of the fallopian tubes.

DR. WELCH: I certainly think that conservative pelvic surgery, possibly including presacral neurectomy should have been considered when she had her ureteral surgery. However, at this point, since she has had the danazol, I think you have to allow her time to get pregnant before you try conservative surgery. My next procedure on her, however, would not be laparoscopy, it would be laparotomy.

DR. RIVLIN: A few cases have been reported in which ureteric obstruction was reversed by medical therapy, however, it is unlikely that this will occur once dense fibrosis has occurred. Combining medical therapy with surgical relief of the obstruction, which is what was done in this woman, has also been reported. Certainly, surgery of any kind would have been much more difficult when she was first seen. Other than the high cost of danazol, what problems have you encountered with its use?

DR. STEWART: I have used danazol with good results. If the patients understand the side effects they will possibly have, the majority will continue to use it. Acne, hot flushes and emotional lability are the chief problems I warn them about.

DR. WELCH: The major problems I have encountered have been headaches, visual problems and some nausea rather than the androgenic side effects.

DR. RIVLIN: If this patient does not become pregnant and we come to surgery, should we carry out a definitive or conservative procedure?

DR. WELCH: I think we should be conservative

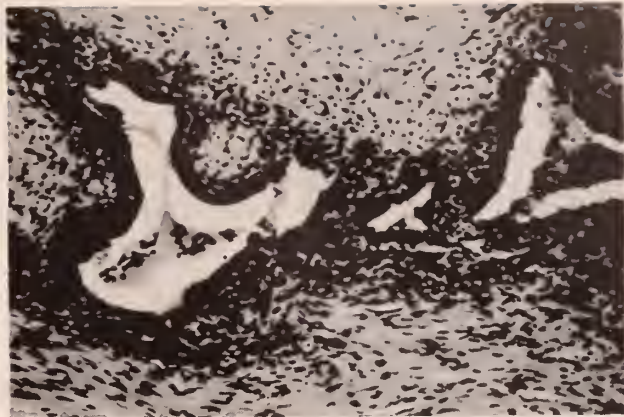


Figure 2. Microscopy of the fibrous tissue obstructing the left ureter indicates the presence of endometrial glands.

if that is what the patient wishes, particularly if the tubes are patent. Obviously the best thing for her would be to remove all the diseased tissue and this probably is what will occur eventually, but not right now.

DR. RIVLIN: We still do not know whether she has old pelvic inflammatory disease in addition to the endometriosis, but this will make no difference to management at present although it could be a factor in making an intraoperative decision later. Thank you all for your valuable contributions.

ADDENDUM: The patient did not become pregnant and symptoms returned with discontinuation of medical therapy. Ureteric patency and renal function remained unchanged. Eighteen months after the reimplantation procedure, she elected to have definitive surgery. Small endometriotic implants were found on both ovaries and the left pelvic sidewall was fixed by dense fibrous tissue. There was no evidence of pelvic inflammatory disease. Total abdominal hysterectomy and bilateral salpingo-oophorectomy were performed. ★★★

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COMMENT

America's Health Care Revolution: A Mississippi Perspective

The following commentary by Dr. Robert Allen Smith and Mr. Richard G. Cowart is based on the recent book by Joseph E. Califano, Jr. (America's Health Care Revolution: Who Lives? Who Dies? Who Pays?). Dr. Smith is president, Mississippi Physicians Practice Association, Inc. Mr. Cowart, an attorney with Watkins, Ludlam and Stennis of Jackson, is general counsel to Mississippi HMO/IPA.

For the past few years, the concept of a revolution or evolution within the health care industry has been the topic about which there has been considerable literature and speech. Few analysts have, however, attempted to deal with the roots and future results of change in the same degree as analyzed by Joseph Califano. His recently published book, *America's Health Care Revolution*¹ is characterized by historical anecdotes, a dazzling array of statistics, and frightful (perhaps insightful) prognosis as to the potential impact of the present day changes. The analysis, filled with colorful references to physicians as "medicine men," hospitals as "the temples of medicine men," Medicare/Medicaid as the "federal money trees," and insurers and suppliers as the "profitable acolytes," provokes the reader to be informed and to think.

One of the relatively few benefits of Mississippi's propensity for lastness is the ability to observe the changes that precede but inevitably reach us. Although this preparation more often takes the form of obstruction rather than accommodation, there are times when the forces and rationale underlying the change require the pursuit of a plan of initiative rather than resistance. With periods of change come the rare opportunities to develop new ideas and attitudes which will shape the events of years to come.

In recent years, Mississippi has only been on the fringes of this so-called health care revolution. The harbinger of today's health care change is the federal government, with the enormous economic clout inherent in the Medicare/Medicaid payment practices. The federal government unleashed significant economic forces on the health care industry with the advent of the prospective payment system (DRG), and it is savoring the result. For the first time in

decades, health care expenditures, as a percentage of gross national product, actually declined during the first full year of prospective payment. As experienced in hospitals throughout the country, the practice patterns spawned by prospective payment became immediately evident in virtually all patient care forms without regard to third party reimbursement.

Because of its unique attempt to describe not only the contemporaneous signals and happenings of change but also their roots and prospective effects, we have chosen this book as a synthesis of important issues facing the future of health care in Mississippi.

As if being a lawyer were not enough to engender strong feelings within the health care community, Joseph Califano had the dubious honor of also being at one time Secretary of Health and Human Services (then Health, Education and Welfare). He actually acted as a unifying force within the industry — with the forces all unifying *against* Califano. He has since tempered many of his liberal social attitudes, and an interesting mix of liberal, social concepts and conservative economic principles are blended in the book. The change appears attributable in large part to Califano's enlightening experience as a member of the Board of Directors of Chrysler Corporation. During the turbulent days when now demigod Lee Iacocca was charged with resurrecting the automotive giant from the dead, Califano was summoned to become a member of Chrysler's Board of Directors and charged with the unenviable responsibility of significantly reducing Chrysler health care costs without affecting quality, and thus enraging the unions. The situation Califano inherited was a tragic indictment of health care delivery in this country, and it made such an indelible impression on Califano that he devotes an entire chapter to this experience at the outset of the book. The remainder of the book is premised on the assumption that such abuses are rampant in today's health care system, and unfortunately, the premise is probably true in many parts of the country.

The abuses identified by Califano at Chrysler included:

- Chrysler paid for one million laboratory tests, more than *five* for every insured man, woman, and child.
- The average chiropractic x-ray bill to the company was \$10,000 per year.
- The average cost of stay at Detroit area hospitals varied by 100 percent.
- The disparity in physician charges for the same service varied by over 100 percent.

1. Random House, 1986; New York, New York. \$17.95. 241 pages.

To support these practices, Califano pursued the initiation of a variety of practices which, although commonplace today, were at the time highly controversial. One such employee incentive program was "One Check Leads to Another" in which Chrysler shared any refund with employees discovering inaccuracies in their medical bills. Ultimately, with the agreement of the United Auto Workers Union, a wide range of cost containment measures, including hospital prescreening, PPO and HMO options, bulk laboratory and drug purchasing, and emergency room use restrictions, were implemented.

Following his presentation, "The Chrysler Story," Califano flashes back 50 years to the underpinnings of the present health care system and outlines what led to the emergence of today's health care colossus. A review of the chronology results in the inescapable conclusion that the deliverers of health care in this country have, with each passing decade, been given specific objectives and, for the most part, met those objectives only to be confronted with an evolving standard. For example, none of the leading causes of death (tuberculosis, diphtheria, influenza, pneumonia and cholera) at the beginning of this century, is a serious public health threat today.

Under the topic the "health care colossus," Califano next proceeds to develop through hyperbole his thesis relative to the obesity of health care in America. Unfortunately, the accompanying facts are very sobering. In 1984, Americans broke the billion-dollar-a-day barrier in dollars spent on health care. At the present pace, it is estimated that by 1990 we will spend \$2,600 annually for each man, woman, and child in America, two-and-one-half times that spent in 1980. In the international perspective, Americans spend twice what West Germans, three times more than Japanese, and four times what Great Britains spend annually on health care — an unfortunate obstacle to our international competitiveness.

After completing his diatribe on the excessive cost of health care in America, Califano next proceeds to dissect the colossus and discuss in successive chapters the component parts of the health care delivery system — the medicine men (physicians), the temples of the medicine men (hospitals), the profitable acolytes (insurance companies and manufacturers of health care equipment and supplies), and the federal money trees (Medicare/Medicaid), as well as state and local government.

With the use of the characterization, "the medicine men," one would expect Califano to be highly

"Among the participants in this 'health care colossus,' physicians are positioned to keep the welfare of the patient versus the cost of providing medical services in its proper perspective."

critical of physicians and their role in the evolution of today's health care system; however, his commentary is surprisingly reserved. For the most part, there is the recognition that physicians have responded to the incentives provided to them. The incentives were to provide more and more health care with little regard for cost, and prolonging life without regard to value judgment in the process. Unfortunately, Califano describes this metaphorically "as the alley cat seeks fish in the trash so will a doctor maximize his reimbursement." This unfortunately derogatory metaphor taints Califano's otherwise accurate assessment that physicians, like the rest of us, have acted and will act according to the economic and professional incentives they face.

With regard to hospitals (the temples of medicine men), Califano adeptly traces their evolving role from "places where people went to die" to "shining pillars of health care miracles." Miracles are, however, not without a price tag, a sum which Califano proposes is too great for society to continue to bear. Califano responds by proposing the dismantling of health care institution delivery systems, including the closure of or conversion to long-term care beds of approximately one-half of the hospital beds in America. Interestingly, Califano discusses but steers clear of taking a definitive position in the debate on the privatization/commercialization of hospitals in America.

The length of this review does not allow for a discussion on the other health care issues addressed in the book including changes in the Medicare/Medicaid system, medical research priorities, consumer information sources, commercial insurance issues, etc., nor does it permit any critical assessment of the author's recommendations. It is important, however, not to close this commentary without at least suggesting what the Mississippi medical community is pursuing in response to the health care revolution.

It has been suggested that Thomas Paine's monograph, *Common Sense*, was a principal catalyst in the American Revolutionary War. It appears that "common sense" should also be the catalyst that determines who lives, who dies, and who pays in the American Health Care Revolution. Indeed, bloated economics and distorted values have created

COMMENT/Continued

a health care delivery system that is badly in need of change. Califano suggests that this system cannot be entrusted to physicians, just as war cannot be left to generals; but as health care times change, physicians must step forward with dynamic, progressive leadership or such will be left to others.

So what can Mississippi physicians do to lead and shape rather than obstruct this incipient revolution? First, there must be a realization that the basic premise of Mr. Califano's book is real and that medicine is in fact in a period of rapid change. Physicians can become involved and provide the proper leadership or can step aside and let the leadership role go to organizations whose only incentive to modify the system is a financial one. Among the participants in this "health care colossus," physicians are positioned to keep the welfare of the patient versus the cost of providing medical services in its proper perspective.

It would be unfair to characterize hospitals or health insurance companies as having disregard for the patient's welfare, but the fact remains that neither of these institutions has the ability to fairly evaluate both sides of the issue. Physicians must be the patient's advocate which, in these times, means to see that he or she gets good medical care at a reasonable cost.

In order to fill this role as the patient's advocate, physicians must become involved in all aspects of health care management. The MSMA has taken the initial step in this regard by establishing an HMO-IPA. This will allow a physician-sponsored organization to control the moneys spent for health care and thereby enter the managed health care arena. There is a need to move forward from this effort into a more diversified management system which would include indemnity contracts, preferred provider organizations, home health care services, and the purchasing of health care equipment and supplies. Physician initiated and controlled ventures need not seek excessive profits. Fair reimbursement for medical services rendered is adequate incentive for efficient operation.

The future of health care in the state of Mississippi is currently in the hands of the physician providers. Can physicians acting responsibly and in concert become involved in management of health care or will the more comfortable role of critic and obstructionist be assumed? Each reader's response to this question will determine the Mississippi perspective to the American Health Care Revolution.

ROBERT ALLEN SMITH, M.D.
RICHARD G. COWART, Esq.
Jackson, MS



Doctor,

Have you ever looked for a different way to say "Thank You," "Congratulations," or "Get Well Soon"?

All of these messages are available, along with memorial tributes, in greeting cards from the MSMA Auxiliary. Each card signifies your donation to the AMA-ERF in the name of a friend or colleague.

For information about AMA-ERF greeting cards for year-round use, contact a member of your local MSMA Auxiliary, or Sara Ann Owen, 604 Woodbine Lane, Hattiesburg, MS 39401; telephone 264-8516.

119th Annual Session

Mississippi State Medical Association

June 3-7, 1987

Biloxi

On June 3, 1987, the 119th Annual Session of the Mississippi State Medical Association will get underway. The combination scientific/business meeting will be held at the Royal d'Iberville Hotel in Biloxi. Reservations should be made directly with the hotel by completing the reservation cards mailed to MSMA members last month or by calling 388-6610.

House of Delegates

Sessions of the House of Delegates are scheduled for Thursday, June 4 and Sunday, June 7. Both meetings will begin at 9:00 a.m. Dr. John J. Coury, president of the American Medical Association, will address the opening session. Delegates will also hear an address by Dr. W. Joseph Burnett of Oxford, MSMA president. The inauguration of Dr. W. Lamar Weems of Jackson as 1987-88 president will take place at the concluding session.

Delegates will cast ballots for more than 80 nominees who have been selected by the Nominating Committee to fill nearly 30 vacancies in association offices. A list of candidates was mailed to all members 60 days prior to the elections, in accordance with the association's bylaws.

Concurrent Meetings

Among the many medical related groups which have scheduled meetings in conjunction with the annual session are the Mississippi Foundation for Medical Care and the Medical Assurance Company of Mississippi. The Mississippi State Board of Medical Licensure will meet during the week, as will more than a dozen specialty societies and four medical alumni organizations — Millsaps, Tulane, University of Tennessee, and Ole Miss.

Scientific Assembly

Continuing medical education credit will be awarded for the scientific assembly, which begins Friday, June 5, with the Surgery Plenary Session/American College of Surgeons Annual Meeting. The Medicine Plenary Session will be held Saturday, June 6. Highlighting the scientific presentations will

be Dr. Kaj Johansen, chief of vascular surgery at Harborview Medical Center, Seattle, Washington. He will present the James Grant Thompson Memorial Lecture, "Vascular Violence: What Everybody Needs to Know About Injured Blood Vessels."

Special Events

James J. Kilpatrick will be featured speaker at the annual MSMA/MSMA Auxiliary banquet on Friday evening. Members and guests will have an opportunity to greet association officers and Dr. Coury at the President's Reception on Wednesday evening. A poolside party for members and spouses will highlight the Saturday social schedule.

Tennis, golf and fishing are on the agenda of special events again this year. Members are urged to sign up now for these popular activities.

OFFICIAL CALL

To all members of the Mississippi
State Medical Association

The 119th Annual Session of the Mississippi State Medical Association is called to meet at Biloxi, Mississippi, on Wednesday, June 3, 1987, pursuant to Article V of the Constitution. The House of Delegates will be convened at the Royal d'Iberville Hotel at 9:00 a.m. on June 4.

The Scientific Assembly will meet during June 5-6, 1987.

No member or guest will be permitted to participate in any aspect of the annual session until regularly registered.

W. JOSEPH BURNETT, M.D.
President

DON Q. MITCHELL, M.D.
Secretary-Treasurer

SCIENTIFIC PROGRAM

119th Annual Session

Friday, June 5

SURGERY PLENARY SESSION

(Participants: MSMA and Miss. Chapter, American College of Surgeons)

- 8:00 a.m. *"CT Scan versus Diagnostic Peritoneal Lavage in the Evaluation of Blunt Abdominal Trauma"*
M. Victoria Gerken, M.D. and Robert Jorden, M.D., Jackson, MS
- 8:30 *"Epidural and Intrathecal Narcotics"*
Jeffrey Jekot, M.D., Hattiesburg, MS
- 9:00 *"Breast Biopsy Interpretation: Correlation of Histologic Diagnosis to Risk of Later Breast Cancer"*
William J. Gibson, M.D., Jackson, MS
- 9:30 *"Fibrocystic Breast Disease: A Pathologist's Viewpoint"*
Thomas P. McGee, M.D., Grenada, MS
- 10:00 Break
- 10:30 *"Medico-Legal Techniques"*
R. Brent Harrison, M.D., Jackson, MS
- 11:00 *James Grant Thompson Memorial Lecture — "Vascular Violence: What Everybody Needs to Know About Injured Blood Vessels"*
Kaj H. Johansen, M.D., Seattle, WA
- 12:00 noon ACS Luncheon
- 1:00 *"The Optimal Portasystemic Shunt"*
Dr. Johansen

Saturday, June 6

MEDICINE PLENARY SESSION

(Participants: MSMA and American Cancer Society, Miss. Division)

- 8:00 a.m. *"Evaluation and Management of the Jaundiced Infant"*
John B. Watkins, M.D., Philadelphia, PA
- 8:45 *"Topical Tretinoin in the Treatment of Facial Wrinkles and Sun-Damaged Skin"*
John M. Abide, M.D., Greenville, MS
- 9:10 Break
- 9:30 *"Treatment of Breast Cancer"*
Robert L. Capizzi, M.D., Winston-Salem, NC
- 10:15 *"Acute Lymphocytic Leukemia in Children: Update"*
Jeanette Pullen, M.D., Jackson, MS
- 11:00 *"Care of the Caregiver"*
Reb McMichael, M.D., Jackson, MS
- 11:45 Panel Discussion

MEDICAL ORGANIZATION

MSMA Membership Banquet Features James J. Kilpatrick



The nation's most widely syndicated political columnist, James J. Kilpatrick, will be featured speaker at the annual MSMA/MSMA Auxiliary Membership Banquet on Friday, June 6 in Biloxi. In addition to his column, which appears in 530 American newspapers, he is contributor to National Review, and for eleven years has been a panelist on "Agronsky & Company," a Washington TV program of political discussion. For nine years Kilpatrick appeared on "60 Minutes" as conservative debater on "Point-Counterpoint." He is the author of nine books, the most recent being The Ear is Human, a book on language.

Hospital Medical Staff Section Schedules Third Annual Meeting

The third annual meeting of MSMA's Hospital Medical Staff Section will take place at 1:30 p.m., Wednesday, June 3, at the Royal d'Iberville Hotel.

Scheduled in conjunction with MSMA's 119th Annual Session, the meeting is designed to serve as a forum for discussion of hospital medical staff issues. Physicians and hospital administrators are invited to participate.

According to Dr. William C. Gates, chairman of the Section, the program will include a pro/con discussion of HMOs. Speakers will be Dr. Jack Schreiber, associate medical director of Physicians Health Plan of Ohio and Dr. Lance Wyble, a pediatrician from Columbus, Mississippi. Another feature of the program will be a presentation on quality of care issues by a representative of the Joint Commission on Accreditation of Hospitals (JCAH). The Section's annual business session will conclude the meeting.

Tennis, Golf, Fishing Events On Annual Session Calendar

Registration is underway for MSMA's tennis tournament, golf tournament, and deep sea fishing rodeo. All three events are on the schedule of activities for the 119th Annual Session in Biloxi.

Gulfport Raquet Club is the site for the tennis tournament, scheduled to begin at 1:00 p.m. on Friday, June 5. The tournament is sponsored by Medical Assurance Company, which will provide tennis balls and refreshments. Trophies will be awarded in men's and women's doubles competition.

Golfers will prepare to tee off at 12:00 noon, Friday, June 5 at Sunkist Golf Course. Trophies will be presented for low gross, low net, longest drive, and closest to pin. Registration is limited to 48 golfers.

Charter boats for deep sea fishing will depart from the Broadwater Marina at 7:00 a.m., Friday and Saturday, returning at 3:30 p.m. The \$70 registration fee covers boat rental for the day, soft drinks and sandwiches. Prizes will be awarded for largest catch in Spanish mackerel, bonito and jackfish.

AMA President Will Address House of Delegates

John J. Coury, Jr., M.D., president of the American Medical Association, will address the MSMA House of Delegates on Thursday, June 4.

Dr. Coury, a general and pediatric surgeon from Port Huron, Michigan, became president of the AMA at its annual meeting in June 1986, after previously serving as chairman and vice chairman of the AMA Board of Trustees. He also was a member of the House of Delegates and the Councils on Legislation and Long Range Planning and Development.

In 1985 Dr. Coury received the Surgical Alumni Award of Wayne State University School of Medicine. He also serves as chairman of the Council of the World Medical Association.



119th Annual Session

June 3-7

Summary of Activities

Wednesday, June 3

Hospital Medical Staff Section
President's Reception

Thursday, June 4

Reference Committee Breakfast
House of Delegates
Miss. Foundation for Medical Care
Miss. State Board of Medical Licensure
Reference Committee Hearings
American Medical Society of Alcohol and
Other Drug Dependencies
Medical Alumni Reunions

Friday, June 5

Fishing Rodeo
MSMA Past Presidents' Breakfast
Surgery Plenary Session
Fifty Year Club
Miss. EENT Association
Miss. Academy of Facial Plastic and Re-
constructive Surgery
Miss. Ob-Gyn Society
Miss. Psychiatric Association
Miss. Chapter, American College of Emer-
gency Physicians
Miss. Chapter, American College of Sur-
geons
Tennis Tournament
Golf Tournament
MSMA/MSMA Auxiliary Membership Re-
ception and Banquet

Saturday, June 6

Fishing Rodeo
Medicine Plenary Session
Medical Assurance Co. of Miss.
Miss. Academy of Family Physicians
Miss. Pathology Association
Miss. Dermatology Society
Miss. Urology Society
Miss. Academy of Pediatrics
Miss. Anesthesiology Society
Miss. Society of Gastroenterology
Miss. Society of Internal Medicine
Poolside Membership Party

Sunday, June 7

Continental Breakfast
Church Services
House of Delegates

Silent Auction Will Benefit AMA-ERF

Last year's silent auction to benefit AMA-ERF proved so popular and was so successful that it will be repeated this year, according to MSMA Auxiliary President, Mrs. Jimmy Waites (Jo).

Once again, a number of attractive items have been donated for the auction. The event will be held during the reception preceding the MSMA/MSMA Auxiliary banquet, Friday, June 5.

The reception and banquet begins at 7:00 p.m. and features James J. Kilpatrick as guest speaker.

Fifty Year Club Will Meet June 5

The MSMA Board of Trustees, sponsor of the association's Fifty Year Club, will honor the half-century-plus members at a special luncheon on Friday, June 5 at the Royal d'Iberville Hotel.

Nearly one hundred MSMA members are now eligible for the club and have been invited to the luncheon. Current members of this special organization include: Drs. S. Lamar Bailey of Kosciusko; T. J. Barkley of Belzoni; Eldon Bolton of Biloxi; Sam B. Caruthers of Grenada; J. T. Davis of Corinth; J. Gordon Dees of Jackson; G. Swink Hicks of Natchez; Joseph Kuljis of Biloxi; Julius L. Levy, Sr., of Clarksdale.

A. R. Perry of Natchez; Tom Ramsay of Biloxi; Lee R. Reid of Jackson; G. T. Sheffield of Gulfport; Earl T. White of Greenville; and Homer A. Whittington of Natchez.

James Grant Thompson Memorial Lecture

Friday, June 5

11:00 a.m.

*Vascular Violence: What Everybody Needs to
Know About Injured Blood Vessels*

Kaj H. Johansen, M.D., Ph.D., chief of
vascular surgery, Harborview Medical Center,
Seattle, WA.

Mississippi State Medical Association Auxiliary

Convention 1987

Wednesday, June 3

12:00 noon Registration/Hospitality
5:30 p.m. MSMA President's Reception

Thursday, June 4

8:00 a.m. Registration
9:00 Hospitality Center
9:00 MSMA House of Delegates
12:00 noon Preconvention Board Meeting & Luncheon
2:30 p.m. Workshop
6:00 Tulane, Tennessee Alumni
6:30 Millsaps Alumni
7:00 Ole Miss Alumni

Friday, June 5

8:00 a.m. Registration
9:00 Hospitality Center
9:00 General Session
12:00 noon Luncheon
6:30 p.m. MSMA/MSMA Auxiliary
 Reception/Banquet
 Silent Auction

Saturday, June 6

8:00 a.m. Past President's Breakfast
9:00 Post Convention Board Meeting and Seminar
5:30 p.m. Poolside Party

Sunday, June 7

8:00 a.m. Continental Breakfast
 Church Services
9:00 MSMA House of Delegates



PERSONALS

The American Academy of Family Physicians announces that the following Mississippi physicians have completed continuing education requirements to retain active membership: JOHN M. FORD of Baldwin; WALTER E. JOHNSTON, JR. of Vicksburg; G. S. MCHENRY of Wiggins; GARY NELSON of Clinton; KELLY S. SEGARS, SR. of Iuka; JAMES E. WARRINGTON, SR. of Clarksdale; and DAVID B. WHEAT of Starkville.

GENE R. BARRETT of Jackson presented the alumni paper on arthroscopic knee ligament repair and artificial knee ligaments to the Greenville Orthopaedic Training Program in Greenville, South Carolina.

BRUNER B. BOSIO of Pascagoula has been recertified by the American Board of Obstetrics and Gynecology.

JOEL R. BRUNT of Pascagoula announces the association of S. JAN DREWRY for the practice of nephrology.

JOHN W. COPE has associated with CHRIS E. WIGGINS of Pascagoula for the practice of orthopedic surgery.

LEE GIFFIN of Vicksburg conducted a public seminar on osteoporosis recently.

H. H. GILES and H. DALE RUSSWURM of Hattiesburg announce the association of KURT F. BRUCKMEIER for the practice of internal medicine.

W. DOUGLAS GODFREY of Jackson announces his retirement from the practice of plastic surgery.

JAMES GORDON of Tupelo spoke on the subject of professional liability at the mid-winter meeting of the Mississippi Bar.

JOHN L. HERZOG has associated with Rush Medical Group in Meridian for the practice of cardiology and internal medicine.

C. H. HEYWOOD of Canton announces his retirement from the active practice of medicine.

MICHAEL E. JABALEY of Jackson recently was in Washington, DC, where he was Visiting Professor of the Hand Service at Walter Reed Army Hospital. He also served on the faculty of an Internal Fixation Course in Vail, Colorado, which was sponsored by the American Society for Surgery of the Hand.

ALBERT M. JONES, JR. announces the establishment of his practice for physician medicine and rehabilitation

at Mississippi Methodist Hospital and Rehabilitation Center.

ROBERT JORDEN of UMC was grand rounds speaker at the University of Arkansas in Little Rock.

HERBERT LANGFORD of UMC presented an abstract at the Southern meeting of the American Federation for Clinical Research in New Orleans.

DOUGLAS C. LANIER, JR. of Biloxi announces the association of JAMES P. MARTIN for the practice of nephrology, hypertension and internal medicine.

CHESTER W. MASTERSON of Vicksburg was speaker at the recent District Rotary Assembly in Jackson.

ERIC A. MCVEY of Jackson was speaker at a symposium on AIDS for medical, religious and legal professionals.

NORMAN NELSON of UMC has been named to the board of trustees of a new program at the Jackson Chamber of Commerce — Leadership Jackson, which seeks to identify and prepare the community's future leadership resources.

CALVIN P. POOLE, JR. of Vicksburg has been named a diplomate of the American Board of Obstetrics and Gynecology.

WILLIAM G. RILEY, retired pediatrician of Meridian, recently was elected to the board of directors, Mississippi Association of Hospital Governing Boards.

KELLY S. SEGARS, SR. of Iuka recently was profiled in an issue of *Medical Tribune* for his community service and contributions to medical education.

DOYLE P. SMITH of Hattiesburg recently spoke about drug abuse and treatment to a group of Delta Catfish Processing employees.

SAMUEL L. STEPHENSON, JR. of Jackson announces his retirement from the active practice of medicine.

JOHN A. TANKSLEY of Greenville has been certified as a diplomate of the American Board of Orthopaedic Surgery.

DAVID THOMAS of UMC is one of eight medical school faculty members across the nation to be awarded a Hartford Geriatric Faculty Development Award from the John A. Hartford Foundation. He will spend a year at Johns Hopkins University School of Medicine for a geriatrics fellowship.

RALPH B. VANCE of UMC was featured speaker at an area-wide meeting of American Cancer Society volunteers in Batesville.

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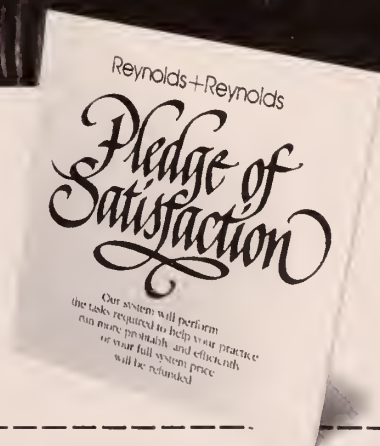
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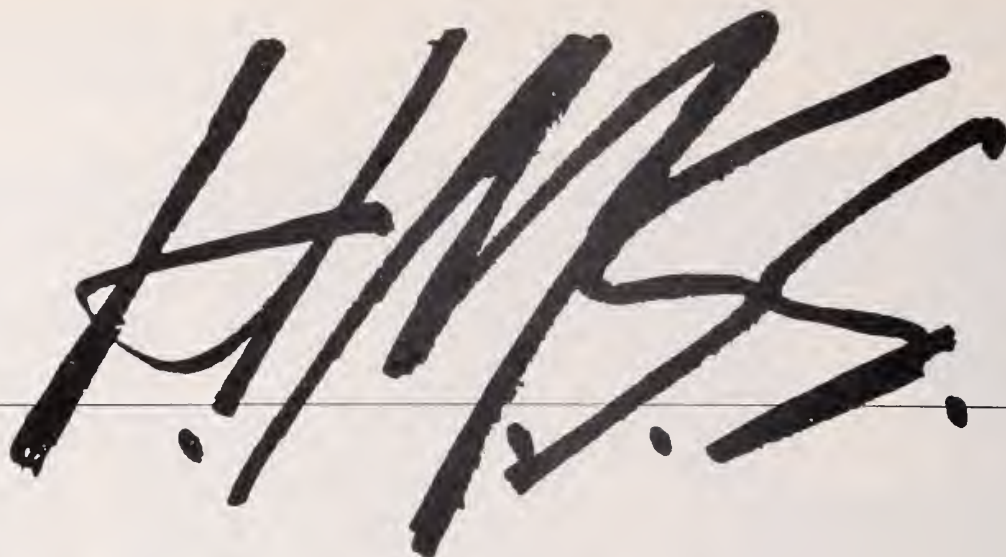
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of Physicians: _____ Specialty: _____



The AMA
Hospital Medical Staff Section
Ninth Assembly

JUNE 18-22, 1987
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American Medical Association

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140

120

100

80

60

40

20

0

130

110

90

70

50

30

10

In mild to moderate hypertension

**THE FIRST
ONCE DAILY**

**CALCIUM
CHANNEL
BLOCKER**

NEW
ONCE DAILY



ISOPTIN^{SR}*

(verapamil HCl/Knoll)

240 mg scored, sustained-release tablets



JAMES B.

38, black male, heavy smoker. Prescribed a diuretic by another physician last year for hypertension.

YOUR CONCERNS

Presents with "smoker's cough." Workup reveals a BP of 150/107.

A LOGICAL CHOICE FOR CONTROL OF HIS BP

ISOPTIN^{SR} (verapamil HCl/Knoll) because...

- Black hypertensives often have low plasma renin activity and generally do not respond favorably to beta blockers.
- Beta blockers may increase the likelihood of bronchospasm.

ALICE W.

65, diabetic, overweight. Her BP has elevated to 190/98.

YOUR CONCERNS

She's on daily insulin.

A LOGICAL CHOICE FOR CONTROL OF HER BP

ISOPTIN^{SR} (verapamil HCl/Knoll) because...

- Unlike most beta blockers and diuretics, ISOPTIN has no adverse effects on serum glucose levels.
- Unlike most beta blockers, ISOPTIN does not mask the symptoms of hypoglycemia.



THOMAS G.

70, asthmatic. In the past, BP adequately controlled with 25 mg hydrochlorothiazide daily.

YOUR CONCERNS

Today patient presents with symptoms of gout. Workup reveals high uric acid level, low serum potassium, and BP elevated to 180/98.

A LOGICAL CHOICE FOR CONTROL OF HIS BP

ISOPTIN^{SR} (verapamil HCl/Knoll) because...

- Unlike diuretics, ISOPTIN will not decrease serum potassium levels or elevate uric acid levels.
- Unlike beta blockers, ISOPTIN can be used safely in asthma and COPD patients.

JOHN K.

42, Annual physical uncovered diastolic BP of 102... confirmed on three successive office visits. Unresponsive to nonpharmacologic intervention.

YOUR CONCERNS

Salesman, spends many hours of his working day in car... total cholesterol level 300, HDL 35.

A LOGICAL CHOICE FOR CONTROL OF HIS BP

ISOPTIN^{SR} (verapamil HCl/Knoll) because...

- Unlike diuretics, ISOPTIN does not cause urinary urgency.
- Unlike either beta blockers or diuretics, ISOPTIN will not adversely affect his already seriously compromised lipid profile.
- Unlike with propranolol, fatigue and impotence are rarely reported.



**Antihypertensive therapy you
and your patients can live with**

*A product of Knoll research.

In mild to moderate hypertension
THE FIRST ONCE DAILY
CALCIUM CHANNEL BLOCKER

Brief Summary

ISOPTIN® SR
(verapamil HCl/Knoll)
240 mg scored, sustained-release tablets

CONTRAINDICATIONS: 1) Severe left ventricular dysfunction (see WARNINGS), 2) Hypotension (less than 90 mmHg systolic pressure) or cardiogenic shock, 3) Sick sinus syndrome or 2nd or 3rd degree AV block (except in patients with a functioning artificial ventricular pacemaker).

WARNINGS: **Heart Failure:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (see DRUG INTERACTIONS). Patients with milder ventricular dysfunction should, if possible, be controlled before verapamil treatment. **Hypotension:** ISOPTIN (verapamil HCl) may produce occasional symptomatic hypotension. **Elevated Liver Enzymes:** Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Periodic monitoring of liver function in patients receiving verapamil is therefore prudent. **Accessory Bypass Tract (Wolff-Parkinson-White):** Patients with paroxysmal and/or chronic atrial flutter or atrial fibrillation and a coexisting accessory AV pathway have developed increased antegrade conduction across the accessory pathway producing a very rapid ventricular response or ventricular fibrillation after receiving intravenous verapamil. While this has not been reported with oral verapamil, it should be considered a potential risk. Treatment is usually 0. C.-cardioversion. **Atrioventricular Block:** The effect of verapamil on AV conduction and the SA node may cause asymptomatic 1st degree AV block and transient bradycardia. Higher degrees of AV block, while infrequent (0.8%), may require a reduction in dosage or, in rare instances, discontinuation of verapamil HCl. Patients with Hypertrophic Cardiomyopathy (IHSS): Although verapamil has been used in the therapy of patients with IHSS, severe cardiovascular decompensation and death have been noted in this patient population.

PRECAUTIONS: **Impaired Hepatic or Renal Function:** Verapamil is highly metabolized by the liver with about 70% of an administered dose excreted in the urine. In patients with impaired hepatic or renal function verapamil should be administered cautiously and the patients monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacological effects (see OVERDOSAGE).

Drug Interactions: **Beta Blockers:** Concomitant use of ISOPTIN and oral beta-adrenergic blocking agents may be beneficial in certain patients with chronic stable angina or hypertension, but available information is not sufficient to predict with confidence the effects of concurrent treatment in patients with left ventricular dysfunction or cardiac conduction abnormalities. **Digitalis:** Clinical use of verapamil in digitalized patients has shown the combination to be well tolerated if digoxin doses are properly adjusted. However, chronic verapamil treatment increases serum digoxin levels by 50 to 75% during the first week of therapy and this can result in digitalis toxicity. Upon discontinuation of ISOPTIN (verapamil HCl), the patient should be reassessed to avoid underdigitalization. **Antihypertensive Agents:** Verapamil administered concomitantly with oral antihypertensive agents (e.g., vasodilators, angiotensin-converting enzyme inhibitors, diuretics, beta blockers, prazosin) will usually have an additive effect on lowering blood pressure. Patients receiving these combinations should be appropriately monitored. **Disopyramide:** Disopyramide should not be administered within 48 hours before or 24 hours after verapamil administration. **Quinidine:** In patients with hypertrophic cardiomyopathy (IHSS), concomitant use of verapamil and quinidine resulted in significant hypotension. There has been a report of increased quinidine levels during verapamil therapy. **Nitrates:** The pharmacologic profile of verapamil and nitrates as well as clinical experience suggest beneficial interactions. **Cimetidine:** Two clinical trials have shown a lack of significant verapamil interaction with cimetidine. A third study showed cimetidine reduced verapamil clearance and increased elimination to 1/2. **Anesthetic Agents:** Verapamil may potentiate the activity of neuromuscular blocking agents and inhalation anesthetics. **Carbamazepine:** Verapamil may increase carbamazepine concentrations during combined therapy. **Rifampin:** Therapy with rifampin may markedly reduce oral verapamil bioavailability. **Lithium:** Verapamil may lower lithium levels in patient on chronic oral lithium therapy. **Carcinogenesis, Mutagenesis, Impairment of Fertility:** There was no evidence of a carcinogenic potential of verapamil administered to rats for two years. Verapamil was not mutagenic in the Ames test. Studies in female rats did not show impaired fertility. Effects on male fertility have not been determined. **Pregnancy (Category C):** There are no adequate and well-controlled studies in pregnant women. ISOPTIN crosses the placental barrier and can be detected in umbilical vein blood at delivery. This drug should be used during pregnancy, labor, and delivery, only if clearly needed. **Nursing Mothers:** ISOPTIN is excreted in human milk, therefore, nursing should be discontinued while verapamil is administered. **Pediatric Use:** Safety and efficacy of ISOPTIN in children below the age of 18 years have not been established.

ADVERSE REACTIONS: Constipation 8.4%, dizziness 3.5%, nausea 2.7%, hypotension 2.5%, edema 2.1%, headache 1.9%, CHF/pulmonary edema 1.8%, fatigue 1.7%, bradycardia 1.4%, 3° AV block 0.8%, flushing 0.1%, elevated liver enzymes (see WARNINGS). The following reactions, reported in less than 1.0% of patients, occurred under conditions (open trials, marketing experience) where a causal relationship is uncertain; they are mentioned to alert the physician to a possible relationship: angina pectoris, arthralgia and rash, AV block, blurred vision, cerebrovascular accident, chest pain, claudication, confusion, diarrhea, dry mouth, dyspnea, ecchymosis or bruising, equilibrium disorders, exanthema, gastrointestinal distress, gingival hyperplasia, gynecomastia, hair loss, hyperkeratosis, impotence, increased urination, insomnia, macules, muscle cramps, myocardial infarction, palpitations, paresthesia, psychotic symptoms, purpura (vasculitis), shakiness, somnolence, spotty menstruation, sweating, syncope, urticaria. **Treatment of Acute Cardiovascular Adverse Reactions:** Whenever severe hypotension or complete AV block occur following oral administration of verapamil, the appropriate emergency measures should be applied immediately, e.g., intravenously administered isoproterenol HCl, levarterenol bitartrate, atropine (all in the usual doses), or calcium gluconate (10% solution). If further support is necessary, inotropic agents (dopamine or dobutamine) may be administered. Actual treatment and dosage should depend on the severity and the clinical situation and the judgment and experience of the treating physician.

OVERDOSAGE: Treatment of overdosage should be supportive. Beta-adrenergic stimulation or parenteral administration of calcium solutions may increase calcium ion flux across the slow channel, and have been used effectively in treatment of deliberate overdosage with verapamil. Clinically significant hypotensive reactions or fixed high degree AV block should be treated with vasopressor agents or cardiac pacing, respectively. Asystole should be handled by the usual measures including cardiopulmonary resuscitation.

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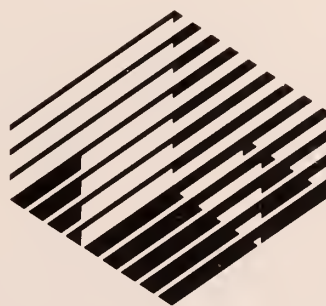
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Medico-Legal Brief

Medicare Policy Guidelines Not Subject to FOIA Disclosure

The Medicare Policy Guidelines used to process claims for payments submitted by physicians was not subject to disclosure under the Freedom of Information Act, a federal appellate court for California ruled. The Guidelines determined whether, at the first stage of claims processing, claims for billed services should be paid, denied, or reviewed more closely. They also contained instructions for computer coding and routing within Blue Cross. A physician's request for disclosure of the internal processing guidelines was refused, and the appellate court affirmed. The court said that an affidavit by a regional administrator provided adequate factual basis for the trial court to determine that the guidelines were exempt from disclosure. The decision that the guidelines were exempt as internal rules and practices was not clearly erroneous, the court said. Disclosure of the guidelines could cause them to lose their utility in auditing if a barrage of claims fashioned to conform to them were submitted, the court concluded. — *Dirksen v. United States Department of Health and Human Services*, 803 F. 2d 1456 (C.A.9, Cal., Nov. 4, 1986)



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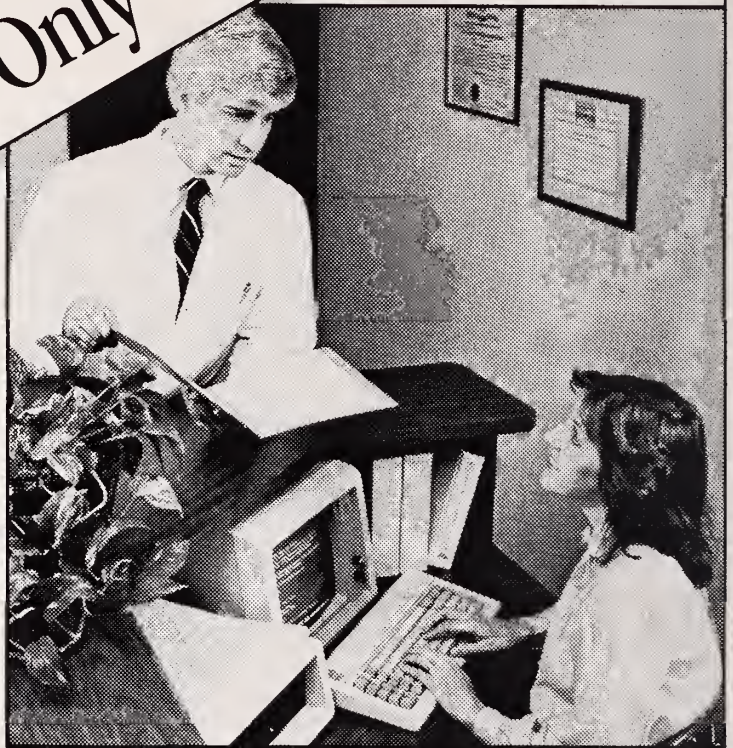
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NEW MEMBERS

BEASLEY, JAMES M., Jackson. Born Hattiesburg, MS, Dec. 29, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and three years of internal medicine residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

BOLTON, GARY G., Clinton. Born Jackson, MS, Sept. 20, 1958; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and internal medicine residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

FLANAGAN, KAREN ANN, Clarksdale. Born Gardiner, ME, Jan. 1, 1954; D.O., Kirksville College of Osteopathic Medicine, Kirksville, MO, 1980; interned, one year, Cuyahoga Falls General Hospital, Cuyahoga Falls, OH; elected by Clarksdale and Six Counties Medical Society.

JONES, LESLIE L., Ridgeland. Born Oxford, MS, Dec. 14, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and pediatric residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

KNIGHT JOEL M., Biloxi. Born Jackson, MS, April 5, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned, one year, San Francisco General Hospital, San Francisco; ophthalmology residency, University Medical Center, Jackson, MS, 1982-85; fellowship, Northwestern University, Chicago, 1985-86; elected by Coast Counties Medical Society.

MANSOUR, SAMUEL P., Greenville. Born Greenville, MS, July 5, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned one year, Tulsa, OK; general practice residency, St. Joseph Hospital, Denver, CO, 1981-82; elected by Delta Medical Society.

NORTH, DARDEN H., Jackson. Born Jackson, MS, Feb. 21, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and ob-gyn residency, University Medical Center, Jackson, 1982-86; elected by Central Medical Society.

PERRY, C. STEPHEN, Ridgeland. Born Chattanooga, TN, June 5, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and pediatric residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

SCOTT-CONNER, CAROL, Jackson. Born Towanda, PA, June 24, 1946; M.D. New York University Medical Center, New York, 1976; interned and general surgery residency, same, 1976-81; elected by Central Medical Society.

SHEEHA, PATRICK B., Mound Bayou. Born Louisville, KY, Jan. 12, 1956; M.D., University of Kentucky Medical School, Lexington, 1982; interned and pediatric residency, Oregon Health Sciences University, Portland, 1982-86; elected by Delta Medical Society.

SMITH, WILLIAM W., Whitfield. Born Fort Eastis, VA, Oct. 10, 1951, M.D., University of Mississippi School of Medicine, Jackson, 1985; interned, University Medical Center, Jackson, one year; elected by Central Medical Society.

THOMAS, DAISY M., Belzoni. Born Amite County, Aug. 7, 1950; M.D., Case Western Reserve University School of Medicine, Cleveland, OH 1976; family practice residency, University Medical Center, Jackson, 1976-79; elected by Delta Medical Society.

WELLS, RALPH P., Jackson. Born Forest, MS, Feb. 13, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and radiology residency, University Hospital, University of Florida, Jacksonville, 1982-86; elected by Central Medical Society.

WESSLER, ROBERT C., Gulfport. Born Jackson, MS, Sept. 27, 1949; M.D., Tulane University School of Medicine, New Orleans, 1975; interned and dermatology residency, Charity Hospital, New Orleans, 1975-79; elected by Coast Counties Medical Society.

The editors invite your comments, inquiries, and suggestions. Please address letters to the Editors, *Journal of the Mississippi State Medical Association*, P.O. Box 5229, Jackson, MS 39216.

DEATHS

ANDERSON, WILLIAM J., JR., Meridian. Born Meridian, MS, Oct. 16, 1906; M.D., Chicago Medical School, Chicago, IL, 1938; interned and surgery residency, Paducah, KY, 1937-1940; died Feb. 18, 1987, age 80.

BOYETTE, C. G., JR., Gulfport. Born Ruleville, MS, March 13, 1916; M.D., University of Tennessee College of Medicine, Memphis, 1944; interned U.S. Naval Hospital, San Diego, CA, one year; otolaryngology residency, Charity Hospital, New Orleans, 1960-63; died Feb. 13, 1987, age 70.

HOWARD, WILLIAM B., Pontotoc. Born Jackson, MS, Nov. 13, 1927; M.D., Bowman Gray School of Medicine of Wake Forest College, Winston-

Salem, NC, 1956; interned City Memorial Hospital, Winston-Salem, one year; died March 26, 1987, age 59.

LAIRD, EARL L., SR., Union. Born Union, MS, Sept. 7, 1907; M.D., Emory University School of Medicine, Atlanta, 1933; interned, same, one year; died March 30, 1987, age 79.

LAKE, CHESTER H., Jackson. Born Ferguson, MO, April 13, 1924; M.D., University of Tennessee College of Medicine, Memphis, 1947; interned one year, John Gaston Hospital, Memphis; ob-gyn residency, University of Tennessee, Memphis, 1953-1955; died March 26, 1987, age 62.

TATUM, JETSON P., Meridian. Born Meridian, MS, Feb. 4, 1914; M.D., Tulane University School of Medicine, New Orleans, 1940; interned Rush Memorial Hospital, Meridian, 2 years; died Dec. 4, 1986, age 72.

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Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

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MULTI-SPECIALITY CLINIC seeks BC/BE hematologist/oncologist. Modern, fully equipped 220-bed hospital. Contact John Wallace, Internal Medicine Clinic, 1203 Jefferson Street, Laurel, Ms 39442. Phone (601) 649-2863 or MS WATS 1-800-654-7918.

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FAMILY PHYSICIAN WANTED for association in group practice with Dayton E. Whites, M.D., Thomas R. Shaw, M.D., and Raymond E. Tipton, Sr., M.D., at Community Medical Center, P.A., 307 West Dewey Street, Lucedale, MS 39452. Contact any of the above at (601) 947-8181.

INTERNIST with an interest in gastroenterology needed to join a cardiologist/internist in a rural Louisiana town from July 1987. Attractive first year salary, benefits, and early partnership. Send CV to: Mansoor H. Qazi, M.D., 1101A Port Arthur Terrace, Leesville, LA 71446.

For information about the Journal's Placement Service or Classified Ads, please contact the Managing Editor, P.O. Box 5229, Jackson, MS 39216; or call 354-5433 (Jackson) or 1-800-682-6415 (toll-free).

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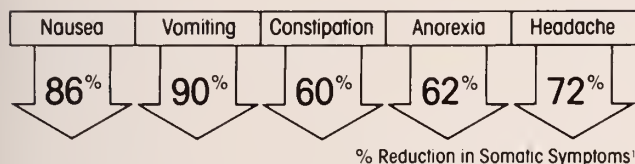
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Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Togamet), clinically significant effects have been reported involving delayed elimination and increasing steady state concentrations of the tricyclic drugs. Concomitant use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring

reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdose: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine sulfate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt). Available in bottles of 100 and 500, Tel-E-Dose[®] packages of 100, Prescription Paks of 50.



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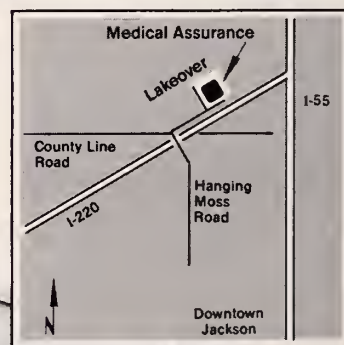
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June 1987

Dear Doctor:

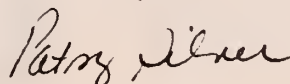
Medical liability costs in 1984 accounted for 15% of total expenditures on physicians' services for that year, with much of the cost pegged to 'defensive' practice changes prompted by malpractice risk. That is the estimate of a study reported in the May 22 JAMA. The study was based on data from the AMA Socioeconomic Monitoring System. Costs associated with professional liability include insurance premiums, the cost of practice changes made in response to increasing liability risk, and costs of incurring claims not covered by insurance.

Two separate methods of analyzing data arrived at estimates of total cost of professional liability in 1984 -- \$13.7 billion and \$12.1 billion (or 15% of the total expenditures on physicians' services). In addition, increased costs associated with professional liability from 1983 to 1984 alone are estimated to have accounted for up to 63% of the increase in expenditures on physicians' services.

The study also reports that the average physician's risk of incurring a malpractice claim has nearly tripled since 1980. An accompanying editorial calls the new study a "giant first step in replacing loose conjecture about 'defensive medicine' with formal quantitative analysis."

Seventy-eight percent of American physicians and almost 60% of the adult American public believe children with AIDS should be allowed to stay in school, according to an AMA survey published in the May 22 "AM News," which also found that 60% of physicians and 57% of the public believe AIDS patients should be allowed to remain at work. The survey also found virtual unanimous agreement that AIDS is a serious national health problem. Only 3% of physicians and 2% of the public said it was not too serious. Although 59% of the physicians trusted current scientific knowledge about AIDS "a great deal," only 27% of the public concurred. However, 45% of the public and 34% of the physicians said they "somewhat" trusted current scientific knowledge about AIDS.

Sincerely,



Patsy Silver
Managing Editor



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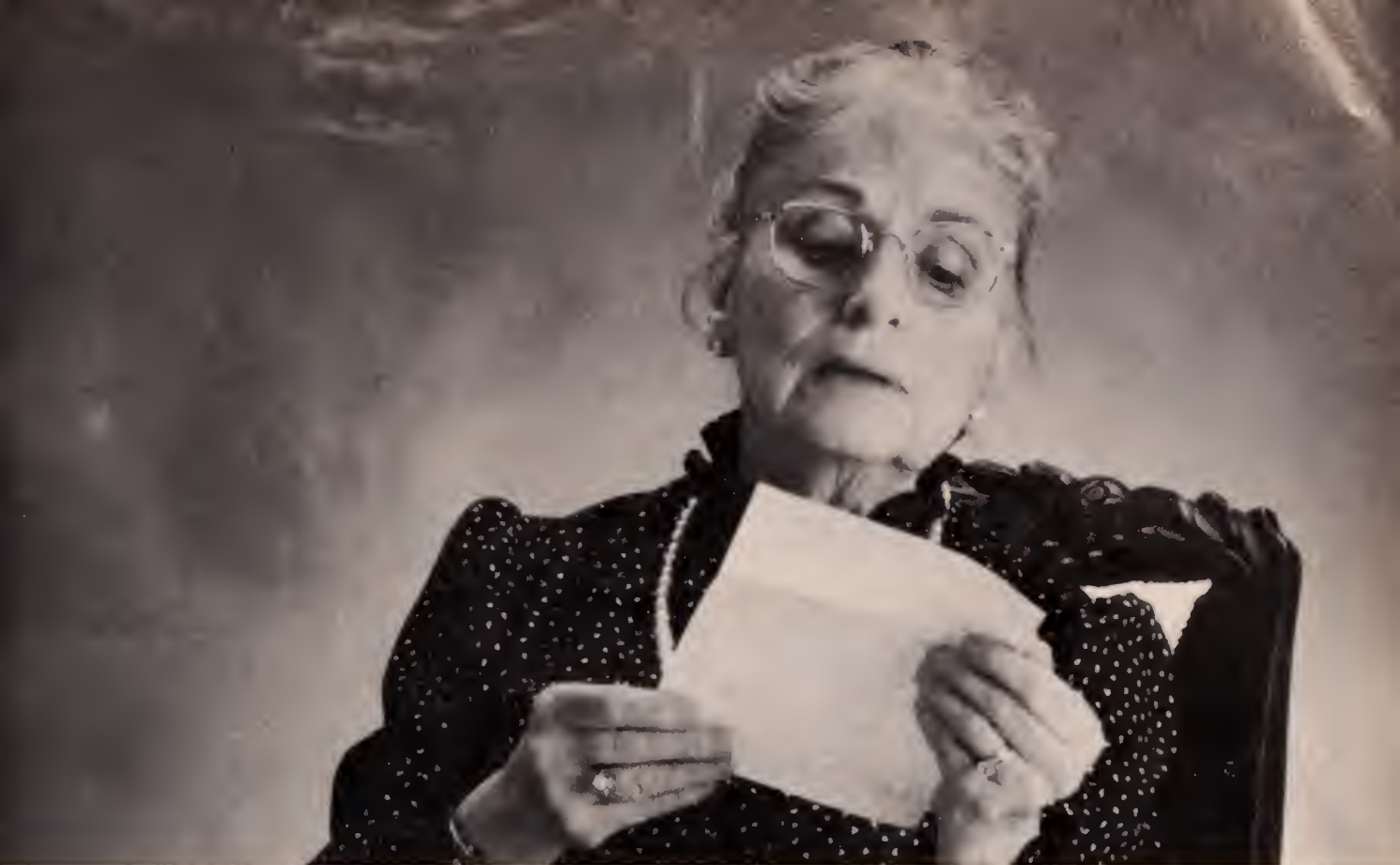
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DATELINE

Did You Receive Your
License Renewal Form?

Jackson, MS - A computer malfunction resulted in an error in the mailing of the State Board of Medical Licensure's annual reregistration

forms. Many physicians may have received two forms, while others did not receive one at all. The Board of Medical Licensure urges you to contact their offices immediately if you have not received your reregistration form. Ask for Donna Lomax (354-6645 or 362-8818).

Second Opinion Program
May Begin in Fall

Jackson, MS - The Mississippi Foundation for Medical Care may begin implementing HCFA's second opinion program this fall. MFMC

expects to be notified of at least ten elective procedures which will require a second opinion when the necessity for surgery cannot be clearly determined by an MFMC physician reviewer. The new preprocedure program had been expected to begin in January 1987.

RMSF Fatality Prompts
Health Department Caution

Jackson, MS - Physicians should consider Rocky Mountain Spotted Fever in diagnosing febrile persons who have been in tick-infested areas,

says the State Department of Health. Describing a fatal case of RMSF in a five-year-old child in north Mississippi, the May Morbidity Report reminds that after onset of symptoms, a rash may be delayed or may not appear at all. In untreated cases, the fatality rate may range as high as 90%.

Study Suggests Need
For Drug Dose Adjustment

Chicago, IL - Physicians may not be adjusting drug doses for low body weight and advancing age, key risk factors for patient over-

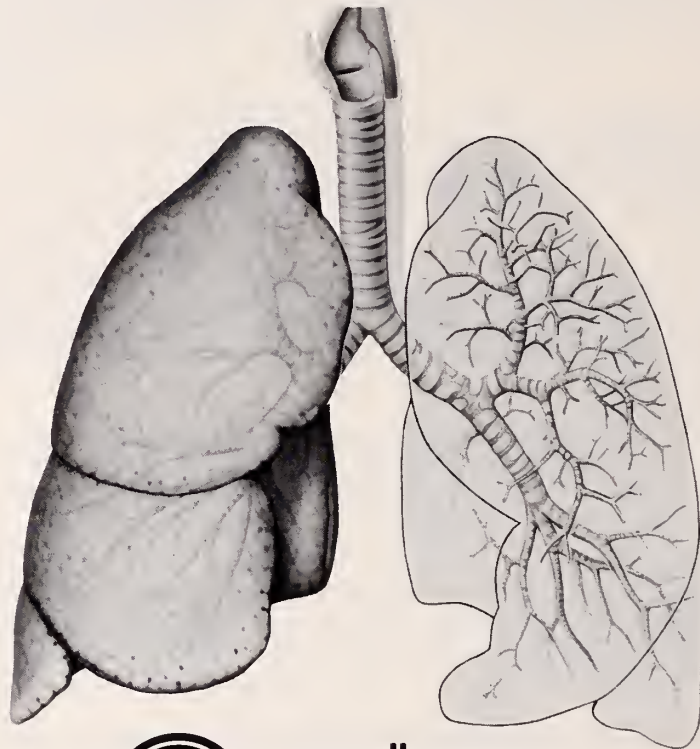
medication and drug toxicity, says a study in the May issue of Archives of Internal Medicine. Researchers studied three drugs prescribed for 1,800 patients, average age 72 years, analyzing weight, age and dose. No trend for reducing doses for older patients was seen.

Drug Improves Symptoms
In Alzheimer's Patients

Chicago, IL - A drug that enhances the action of certain neurotransmitters may improve behavioral symptoms in Alzheimer's disease,

says a study in the May Archives of General Psychiatry. In a double-blind study, 17 patients received L-Deprenyl at doses of 10 mg and 40 mg daily. At the low dose, patients showed significant decreases in excitement, tension, and anxiety/depression.

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Contraindication:
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Warnings:

CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients. Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] or the above skin manifestations accompanied by arthritis/arthritis and, frequently, fever): 1.5%, usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness,

insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.

- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest[®] tablets but not with Tes-Tape[®] (glucose enzymatic test strip, Lilly).

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A black and white photograph occupies the left half of the page. It features a stethoscope with a dark tube and two white earpieces, resting on a dark surface. In the center, a glass filled with a yellowish-amber liquid sits. To the right of the glass, a small red pill bottle lies on its side, with several red and yellow capsules spilled out onto the surface. The lighting creates soft shadows, emphasizing the textures of the stethoscope, glass, and pills.

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Counsel to Authors

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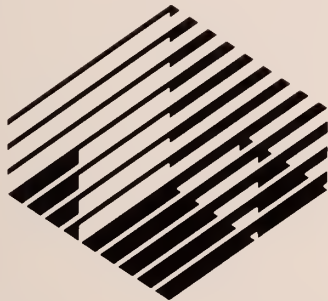


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Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other anti-hypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

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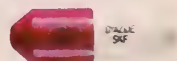


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Psoriasis as a Complication of Saphenous Vein Phlebectomy

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THE WIDESPREAD popularity of coronary artery bypass surgery has resulted in several reports of post-operative complications at sites of saphenous vein phlebectomy.¹⁻⁴ We observed a patient with rheumatoid arthritis who developed psoriasis within a phlebectomy wound following cardiac surgery. A worsening of pre-existing subclinical psoriasis involving extensor surfaces was noted concurrently.

Case Report

A 47-year-old white female with a long history of severe, nodular seropositive rheumatoid arthritis developed ischemic heart disease and underwent coronary bypass surgery.

Her articular disease had been controlled with salicylates, low doses of prednisone and d-penicillamine (750 mg/d) without side effects. An undiagnosed psoriasiform patch had been present on the skin of the right elbow for two years and had been treated intermittently with topical corticosteroids. Nail pitting was not observed. The mother of the patient suffered from moderately extensive psoriasis.

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Figure 1. Erythematous papulo-squamous eruption on right leg of cardiac bypass patient. Biopsy was consistent with psoriasis.

Approximately one month following bypass surgery, a scaling, erythematous macular eruption appeared within the suture lines of the saphenous vein phlebectomy site on the right leg (see Figure 1). Simultaneously, multiple psoriasiform lesions developed on the arms, legs, and buttocks. Psoriasis was not present in the median sternotomy scar. Skin biopsy of an involved area of the thigh confirmed the clinical diagnosis of psoriasis.

Discussion

Previous reports of complications of saphenous vein phlebectomy have principally described post-operative cellulitis in affected limbs, usually secondary to local streptococcal or tinea pedis infection.¹⁻³ We discovered one previous case in the literature in which psoriasis appeared distal to an area of cellulitis 50 months after phlebectomy and bypass surgery.⁴

In our patient, we felt that the Koebner phenomenon, or isomorphic response, was implicated in the development of psoriasis within the phlebectomy scar.⁵ This response may have also indicated the potential for exacerbation of her previously minimal psoriatic disease into a more widespread cutaneous eruption.⁶

A significant percentage of patients with psoriasis report development of psoriatic skin lesions following local skin trauma, including surgical wounds.^{7, 8} The occurrence of psoriasis in these tissues may be related to epidermal injury with or without a dermal inflammatory reaction.⁷ Cell interactions, including events directed by immune response genes, may also be involved.⁹ In some instances, local skin pressure sufficient to obliterate small blood vessels may inhibit the Koebner response during the first 24 hours after surgery.¹⁰

Physician awareness of psoriasis as a potential complication of saphenous vein phlebectomy is warranted. Patients undergoing coronary artery bypass surgery should be cognizant of the potential for infectious and possibly psoriatic complications of saphenous vein harvesting.

Summary

Psoriasis developed post-operatively within the saphenous vein phlebectomy scar in a patient with rheumatoid arthritis who underwent coronary artery bypass surgery. The Koebner phenomenon is implicated as the initiating event in this unusual cutaneous complication of cardiac surgery. ★★

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Clinical Evaluation of the Brachial Plexus: A Simplified Approach

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THE BRACHIAL PLEXUS remains an enigma to most physicians. While all physicians have been exposed to the anatomy of the brachial plexus, few see sufficient numbers of patients with plexus lesions to remain adept at evaluating the deficits. There are, however, a few rules to brachial plexus evaluation which can greatly simplify the process. Knowledge of detailed brachial plexus anatomy is not required to clinically evaluate a patient. For convenience, brachial plexus abnormalities can be divided into three groups as follows: (1) root and/or trunk lesions, (2) division and/or cord lesions, and (3) peripheral nerve lesions.

Anatomy

In most patients the brachial plexus is derived from the C5 to T1 nerve roots (see Figure 1). However, in some patients, the C4 and T2 nerve roots contribute to the plexus. The roots combine to form the upper, middle, and lower trunks. The trunks undergo division at the level of the clavicle to recombine as lateral, posterior, and medial cords. The cords, therefore, are located in the axilla and subsequently divide into the peripheral nerves. Of importance are particular nerves that originate at strategic locations. These include the long thoracic nerve (supplies the serratus anterior), the dorsal scapular nerve (supplies the rhomboids), the suprascapular nerve (supplies the infraspinatus and supraspinatus), sympathetic fibers originating from the T1 root, and the usually tested distal nerves in the upper extremity (see Table 1).

Evaluation

In general, a simplified evaluation can be performed briefly; however, certain factors must be borne in mind. First, the lesion may be dynamic, as might occur with an evolving hematoma from a

TABLE 1

<i>Nerve</i>	<i>Muscle</i>
Long Thoracic	Serratus Anterior
Dorsal Scapular	Rhomboideus major and minor
Suprascapular	Supraspinatus; Infraspinatus
Axillary	Deltoid
Musculocutaneous	Biceps
Radial	Triceps; Extensor carpi radialis and ulnarius
Median	Flexor carpi radialis; Opponens pollicis; Flexor digitorum superficialis
Ulnar	Abductor digiti minimi; Opponens digiti minimi; Adductor pollicis

vascular injury. Second, the clinical examination depends on the ability of the patient to comply with the examiner's requests. Frequently a trauma patient has marked anxiety and pain, or may not cooperate because of the effects of alcohol and other drugs. Often serial examinations over several days will be required to determine the extent of the lesion.

For brachial plexus evaluation it must be ascertained that the patient has some weakness or sensory deficit of the upper extremity. Usually this is easily determined during the physical examination. The deltoid muscle, which is supplied by the axillary nerve, abducts the arm from about 15 degrees off the vertical axis to the horizontal plane. Weakness of this muscle is determined by comparing the two sides. Axillary nerve lesions may cause decreased sensation over the deltoid region. The biceps muscle is supplied by the musculocutaneous nerve and assists in elbow flexion. The triceps and extensor carpi radialis and ulnarius are supplied by the radial nerve and extend the elbow and wrist joints, respectively.

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Sensory loss may occur over the snuffbox area. The median nerve supplies the flexors of the wrist, the opponens pollicis, and the flexor digitorum superficialis which flexes the MIP joints of the fingers. Sensory deficits may occur over the thumb, index, and middle fingers. The ulnar nerve supplies the abductor digiti minimi, opponens digiti minimi, and the adductor pollicis in addition to other hand muscles. It also supplies sensation to the ulnar side of the hand up to the wrist crease. Careful examination allows one to determine which nerves have deficits. A plexus lesion must be considered with involvement of two or more nerves, partially or completely, which cannot be explained by a lesion distally in the arm.

Once two or more nerves of the upper extremity are found to be abnormal and a brachial plexus lesion is suspected, attention is turned to nerves which originate proximally from the root/trunk region. This includes the dorsal scapular, the suprascapular, and the long thoracic nerves, and sympathetic fibers from the T1 root. The dorsal scapular nerves supplies the rhomboids which move the scapulae medially and can be tested by having the patient place his hands on the hips and trying to touch his elbows behind him. The examiner should test the strength on each side to determine any weakness. The suprascapular nerve supplies the supraspinatus and infraspinatus muscles. The supraspinatus controls abduction of the upper extremity for the first 10 to 15 degrees (then the deltoid takes over). This muscle is easily tested by comparing the strength of abduction bilaterally. The infraspinatus muscles can be tested by comparing the strength bilaterally while the patient keeps the elbows tucked in to his sides and rotates the arms outward. The long thoracic nerve supplies the serratus anterior muscle. A lesion of this nerve causes a winged scapula, and

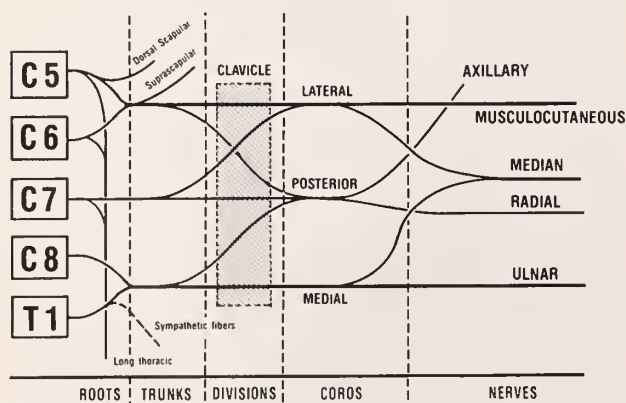


Figure 1

TABLE 2

Guidelines for Brachial Plexus Evaluation

- 1) Two or more nerves in the upper extremity with partial or complete lesions indicates possibility of a plexus injury.
- 2) Involvement of dorsal scapular nerve, suprascapular nerve, long thoracic, decreased sensation in C8 dermatome, or presence of a Horner's syndrome indicates a root or trunk lesion.
- 3) No evidence of a root or trunk lesion, indicates a lesion of the division or cords.

is determined by having the patient push against a solid object, such as a wall, with outstretched arms and examining the scapulae. Sympathetic fibers from the T1 root are easily assessed by looking for a Horner's syndrome (miotic pupil, decreased sweating on the ipsilateral face, and ptosis). At this point, sensation on the medial side of the hand and arm should be assessed. If there is decreased sensation extending up the arm, a dermatomal pattern is outlined which indicates involvement of the C8 nerve root. Lesions of the ulnar nerve result in decreased sensation of the medial hand which extends to about the wrist crease. If there is no involvement of the dorsal scapular nerve, suprascapular nerve, long thoracic nerve, no Horner's syndrome, and no C8 dermatomal sensory loss, the lesion must lie within the division/cord group. However, if there is evidence of involvement of one or more of these proximal nerves, T1 sympathetic fibers, or a C8 dermatomal sensory loss the lesion is in the roots or trunks (see Table 2).

Discussion

In few instances can clinical examination be as rewarding for localization of a pathologic process as evaluation of a brachial plexus lesion. Although it is possible to have diffuse plexus injuries, it is uncommon to have an isolated root, trunk, or cord lesion.¹ The diffuse lesions result in involvement of multiple upper extremity nerves. Thus, a plexus lesion should be suspected with abnormalities of multiple nerves.

The proposed grouping provides a convenient means of plexus evaluation and offers an initial indication for further treatment and prognosis. In general, proximal lesions involving the root or trunk region have a bad prognosis. For example, a Horner's syndrome indicates involvement of the first thoracic nerve root and generally poor functional return.² Conversely, sparing of the proximal components such as rhomboids or serratus anterior implies the possibility of some functional return.

Nevertheless, occasional root and trunk lesions have been successfully treated surgically.⁴⁻⁶ Cord lesions, especially involving the lateral and posterior cords may benefit from surgical treatment.³⁻⁵ Medial cord lesions have a poor outcome because of the long distance the axon must grow to reach the hand musculature. Of course, peripheral lesions may often benefit from aggressive treatment. Tandem lesions, such as a combination of trunk and cord injuries, are difficult to evaluate and full assessment may require operative exploration with electrical stimulation for nerve action potentials.

Conclusion

Brachial plexus lesions are difficult to evaluate because of the complexity of the plexus itself, lack of patient cooperation secondary to anxiety, pain, and drug effects. However, if several basic rules

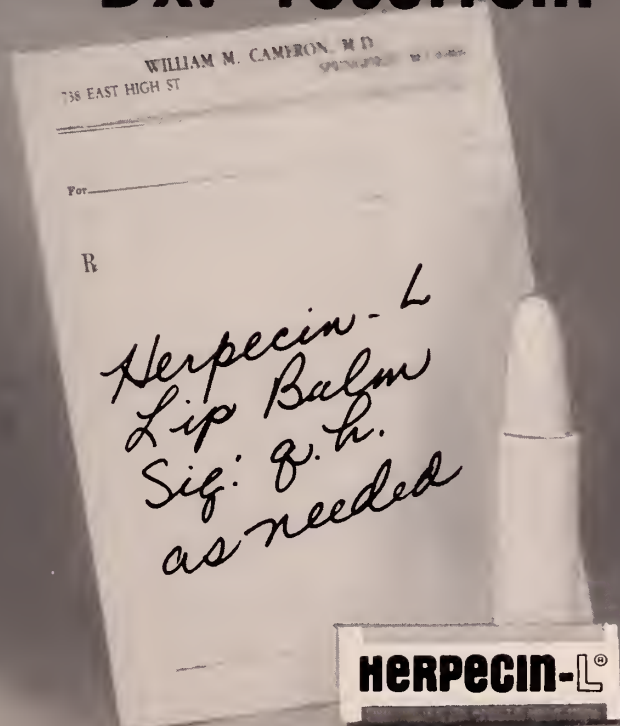
are followed, a general localization of the lesion can be determined. This allows a more precise treatment plan for the patient. ★★★

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Current Concepts: Care and Habilitation of the Child With Myelomeningocele — A Multidisciplinary Approach

I. Neurologic Complications of Myelomeningocele

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MYELOMENINGOCELE represents a failure of closure of the neural tube or schisis. The resulting lesion involves the cord (myelo) within a poorly epithelialized, fluid filled sac (meningocele). The lesion may occur anywhere from the cervical to the sacral spinal cord and only involves the posterior elements. The lesion occurs as one of many involving dorsal induction. Dorsal induction refers to the inductive events that occur on the dorsal aspect of the embryo and result in formation of the brain and spinal cord. This process can further be broken down into primary and secondary neurulation. Primary neurulation refers to those events responsible for formation of neural structures above the upper lumbar region and secondary neurulation to those events below this level. A table of definitions is provided to explain the terms associated with these lesions (see Table 1).

The neural plate develops in the third week of gestation and progresses rapidly with folding of the plate to form the neural tube. Closure of the tube begins in the region of the medulla and progresses

Myelomeningocele probably more than any other disability requires aggressive, well-coordinated multidisciplinary management. In recognition of the fact that physicians and community programs throughout the state provide the on-going medical care, support and service to children with this disability and their families, members of the medical staff of Mississippi Children's Rehabilitation Center who also participate in the Myelomeningocele Clinic at Blake Clinic for Children (Children's Medical Program) have submitted this series of specialty articles to update the primary care physician.

rostrally and caudally. The anterior neuropore closes at approximately 24 days and the posterior end at 26 days. Due to the timing of neural closure, extrinsic factors leading to myelomeningocele must occur before the end of the fourth week of gestation.

Different etiologies have been proposed for the failure of neural tube closure.¹ Initially it had been suggested that either failure of closure or closure

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TABLE 1

Myelodysplasia — abnormal formation of the spinal cord.
Spina bifida aperta — dorsal separation of vertebral elements in the midline with deficient skin covering.
Spina bifida occulta — dorsal separation of vertebral elements in the midline with skin coverage.
Schisis — failure of closure of the midline.
Rachischisis — failure of closure of the vertebral column in the midline.

TABLE 2

RECOGNIZED CAUSES OF NEURAL TUBE DEFECTS

Syndrome of anterior sacral meningocele and anal stenosis-dominant, either autosomal or X-linked
Jarco-Levin syndrome-autosomal recessive (phenotype includes meningocele)
Chromosome abnormalities
Trisomy 13
Trisomy 18
Triploidy
Other abnormalities, such as unbalanced translocation and ring chromosome
Teratogens
Valproic acid
Aminopterin/amethopterin
Thalidomide
Specific phenotypes, but without known cause
Cloacal exstrophy
Sacrococcygeal teratoma

Adapted from reference 2.

with rupturing of the neural tube due to intrinsic factors might explain the lesion. Abnormal tethering of the cord due to the myelomeningocele was used to explain the presence of the chiari malformation associated with it. More recent neuroembryologic studies suggest that both lesions are the result of abnormal development of neural elements. The myelomeningocele almost certainly represents a primary lesion but its explanation may be more involved than just a failure of closure as formation of distal lumbar and sacral elements occur from canalization of the "end bud" (secondary neurulation), an area commonly involved in myelomeningocele. Also an increased incidence of neuronal migration defects are seen in association with myelomeningocele. The chiari malformation has been postulated to be a defect of development of the brain cord transition zone. These theories are important as they may explain the higher than expected incidence of MR, learning disabilities and seizures in this condition as well as tempering any expectations of therapeutic intervention.

The genetics of neural tube defects are complicated but in most cases the etiology is believed to be multifactorial and leads to the isolated occurrence of these malformations.² It has been postulated that certain genes such as the transferrin genes, may be closely linked with genes important to reproduction and that maternal genotype may effect paternal transmission of the genes. This could lead to an increased incidence of myelomeningocele in some couples. In a small number of cases, usually with associated malformations, a specific genetic or non-genetic cause may be determined (see Table 2).

Certain individuals are at increased risk for bearing a child with myelomeningocele because of a positive family history or prior occurrence of the defect in another child. Risk is also influenced by maternal health and by use of certain medications, as well as by varying geographic location and ethnic origin (see Table 3).

Prenatal Diagnosis

AFP Testing. Alpha-fetoprotein (AFP) is a glycoprotein synthesized by the yolk sac and fetal GI tract.² Fetal serum AFP peaks at 10-13 weeks gestation and amniotic fluid (AFAFP) at 12-14 weeks. Maternal serum AFP (MSAFP) peaks much later and at much lower levels. AFP has been shown to be increased in amniotic fluid in open neural tube defects. Unfortunately many other conditions besides myelomeningocele can lead to increased amniotic AFP (see Table 4). The sensitivity is very high (>96%) in amniotic fluid for an open neural tube defect. Still a high percentage of elevated values (>50%) will be from pregnancies with other causes such as fetal demise, other congenital anomalies or fetal blood contamination of amniotic fluid. The predictive value can be greatly improved by testing only high risk pregnancies. The sensitivity and predictive value of routine screening of MSAFP is lower than AFAFP and should be coupled with retesting and/or other tests such as ultrasonography. Again, the higher the risk of the tested population, the more predictive the results.

Acetylcholinesterase (AChE). Amniotic fluid AChE levels are probably as specific as AFAFP for neural tube defects.² It does not help with differential diagnosis as many similar conditions spuriously elevate its value. As an adjunctive tool it clearly helps increase predictive value of the AFP. Its role as a primary test is less clear, although faster and less expensive tests may soon become widely available that will need large population studies.

Ultrasonography. Ultrasonography is a useful adjunctive test when performed on women at high risk (ie positive AFP).² About 80% of open spina bifida will be detected in such a group. Routine ultrasonography is less useful in a low risk population (only 40% in one study).

Treatment

Initially no effective treatment was available for myelomeningocele and most infants died. As therapy became available in the late 1950's (especially the valved CSF shunt) early and vigorous treatment of the lesion became the rule at many centers. By the early 70's problems were noted with this vigorous therapy. Lorber published the Sheffield, England experience along with criteria for triaging such patients to a good prognosis verses a poor prognosis group.³ Those in the poor prognosis group were untreated and died within weeks to months. Other groups had independently developed similar criteria for selection to treated or untreated groups in this country. Questions began to arise as unoperated infants lived longer than expected or failed to die at all. While the English have apparently stayed with the use of their criteria, U.S. groups gradually treated more and more of the "selected out" patients until most published studies show virtually all treated except where other associated anomalies make this unfeasible. Adding to this confusion was the Baby Doe case of the early 1980's and a subsequent Baby Jane Doe involving a child with myelomeningocele and other defects. The courts rebuffed a federal attempt to obtain the medical records using DHHS regulations based on section 504 of the Rehabilitation Act of 1973. The passing of a new law, the Child Abuse Prevention and Treatment Act (PL 92-247, 42 U.S.C. 5101 et seq) again raises the issue of treatment of the severely handicapped infant. At present this raises few issues in the treatment of myelomeningocele except where other severe associated anomalies exist. In these latter cases each treating center will have to decide its own course with some intrepidation.

Given that most children will be treated in this country the issue of timing of surgery becomes a matter of hot debate in the neurosurgical community. At issue are two points: (1) does early treatment save or even improve neurologic function; (2) does delayed treatment lead to lower IQ's, possibly related to ventriculitis and shunt infection. The majority of published data would seem to support the contention that early treatment (first 24-48 hours) vs late treatment (>48 hours but < one week) offer

TABLE 3
ESTIMATED INCIDENCE OF NTD BY RISK FACTOR IN U.S.

Population	Incidence/1000 live births
Mother as reference	
General Incidence	1.4-1.6
Women undergoing amniocentesis for advanced age	1.5-3.0
Women with diabetes mellitus	20
Fetus as reference	
1 sibling with NTD	15-30
2 siblings with NTD	57
Parent with NTD	11
Half sibling with NTD	8
Sibling with multiple vertebral defects or occult dysraphism	15-30

Adapted from Reference 2.

TABLE 4
FETAL BIRTH DEFECTS ASSOCIATED WITH INCREASED AMNIOTIC AFP

Abnormalities of GI tract
annular pancreas, duodenal atresia, esophageal atresia
gastroschisis, necrosis of fetal liver, median palatoschisis
Abnormalities of GU tract
congenital nephrosis, polycystic kidneys, renal agenesis, urinary tract obstruction
Cyclopia
Congenital skin defects
Osteogenesis imperfecta
Tetralogy of Fallot
Trisomy 13
Conjoined twins

Adapted from Reference 2.

no real advantage for either function or IQ. Issues of transport, family counseling etc., can therefore be handled in an expeditious but nonemergent manner. Timing of shunt placement is less critical but can safely be done at time of back closure in those infants who already have evidence of hydrocephaly.

Early Neurologic Complications

Infants may present from the neonatal period through approximately three months of age with varying degrees of brainstem dysfunction felt to be secondary to the associated chiari II malformation. Review of the literature shows no uniform case re-

MYELOMENINGOCELE/Hansen

porting, therapy or follow up to allow more than general statements regarding therapy or outcome.

The simplest complication is that of "benign" respiratory stridor that is self limited, a condition that has been reported with no mention of vocal cord function. Other cases are mentioned sporadically in which symptoms cleared without treatment even with vocal cord paralysis although most undergo some form of surgical procedure when cord paralysis is found.

More serious is the finding of lower cranial nerve and/or brainstem dysfunction. This represents a heterogeneous group of cases with vocal cord dysfunction, bulbopharyngeal dysfunction, frank palatal paralysis, apnea and recurrent aspiration in various combinations. In one series 31% of such patients died within two weeks and 38% by last follow up despite vigorous treatment.⁶ Even higher mortality has been reported (60%) with prolonged observation. An interesting subgroup of patients have what appears to be breath holding spells complicated by terminal apnea. These episodes seem to improve when treated with atropine.

Therapy ranges from watchful waiting in isolated stridor to decompressive laminectomy in severe brainstem or cranial nerve dysfunction. Most authors recommend an approach based on severity of symptoms and putative cause. If the patient has not been shunted this is done first with laminectomy only where shunting has not controlled symptoms. If decompression is needed, laminectomy without posterior fossa decompression is recommended by most authors as the pathology seems to involve the cervical spine.⁶ Fibrous bands are frequently found at C₁ as well as tonsillar and/or brainstem extending down to C₈ in some cases.

Late Complications

All children who have undergone surgical repair of a myelomeningocele can be assumed to have a tethered cord as a result of scar tissue formed during healing.⁷ In children with higher lesions this is not an issue due to severe loss of neurologic function already present. In those children with levels at L₄ or below significant deterioration in sensory-motor function and/or pain at the level of the lesion can be seen. Onset of symptoms can be variable in timing and insidious, requiring close observation. Surgical release can halt progression and relieve pain.

A rarer cause of tethered cord is diastematomyelia. This is a condition where a bony or cartilaginous

spicule transects the cord. Symptoms are the same as for other causes of tethered cord.

Hydromyelia represents a fluid filled, dilated central canal which may extend from the Obex (base of the fourth ventricle) to the neural placode. Progressive enlargement can present in several ways. The most common is progressive scoliosis above the level of the lesion. If the lesion begins in the cervical cord a well defined constellation of symptoms occurs, consisting of weakness of the upper extremities and dissociated sensory loss. This latter phenomena refers to the loss of pain and temperature with preservation of other sensory modalities. Another possible manifestation is a sudden decrease in motor function at the time of shunt failure.

Therapy consists of shunting the hydrocephaly or drainage of the canal as indicated. Several techniques are available for drainage of the canal to include marsupialization or placement of a shunt.

Some children with decompensation may be found to have brainstem compression in the cervical canal. Cysts of the velum interpositum have also been reported as a cause of progressive spasticity and lower extremity weakness.

Sudden respiratory arrest heralded only by neck pain and opisthotonus without focal neurologic findings or change in level of consciousness can occur at time of shunt failure. This constitutes a medical emergency and should be treated immediately.

A recent review of 111 patients found a seizure incidence of 22% overall with a 24% incidence in those with shunts. Brain malformation, shunt infection, and perhaps number of shunt revisions were thought to be important risk factors for seizures. They also, not unexpectedly given the associated risk factors, found that those with seizures were more likely to be developmentally delayed. Other studies have variable but lower numbers depending on population studied.

Forty-five children studied with myelomeningocele were found to have true precocious puberty felt to be related to early maturation of the pituitary-hypothalamic axis. It was also believed that these findings were independent of increased intracranial pressure and represented unidentified other cerebral factors. Two children in the study were found to have isosexual puberty advanced by several years. Cryptorchidism was found to occur in 25% of the boys.

Prognosis

It is clear that early and vigorous treatment improves survival but it is not clear that it in any way improves neurologic outcome. Factors that are im-

portant to the long term adjustment of the myelomeningocele patient are IQ, ambulation, urinary continence, obtaining work and finally social acceptance in the community at large.

Intelligence/Learning disabilities. An intelligence quotient (IQ) of 80 or above is generally used to define a normal intellect. Using these criteria most studies are remarkably uniform in finding that about 80% of patients in the good prognosis group will fall above this limit. Using all survivors the number varies more but is still consistently in the 65-70% range. This falls to about 50% for the poor prognosis group. IQ scores are correlated with level of lesion also, being lower in higher lesions. Besides difficulties with intellect, children with myelomeningocele have a higher incidence of learning disabilities and attention deficit which further hampers their performance. These problems are more pronounced in shunted patients. This problem is compounded by some reports that even "arrested" hydrocephalics may show loss of IQ over time or improvement even when felt to be stable after placement of a functioning shunt.

Ambulation. Neurologic level of function is the best but not the only determinant of ability to walk in patients with myelomeningocele. Also to be taken into consideration is the usefulness of that ambulation. Generally sacral and L₅ lesions are compatible with community ambulation. L₄ lesions produce functional ambulators while L₂ and L₁ lesions are not functional ambulators.⁸ Spasticity has also been shown to effect function adversely especially when present in the lower extremities. More recent general articles report much better ambulation than would be expected partly due to better bracing techniques for higher lesions. Such reports are biased by young age of the populations reported and failure to take into account the relatively inefficient nature of such techniques. Almost all studies show decreasing function with time in the more involved groups due to obesity, skeletal deformities and the need for an efficient means of moving about as patients become older.

Urinary continence. Recurrent upper urinary tract infection with subsequent renal failure was a leading cause of late mortality in myelomeningocele at one time. Also incontinence of urine made this an extremely disabling lesion socially. Currently urodynamic testing in infants is proving to be a very reliable way to identify the infant at risk for reflux and upper tract damage.⁹ With such information close follow-up and decompressive surgery can be

instituted early before permanent damage occurs. As patients get older a combination of medication and clean intermittent catheterization can achieve practical continence in a high number of patients. For those patients in whom this fails artificial sphincters and various ureteral slings or suspension (the latter in females) can provide continence. With such modern techniques continence figures of between 80-90% are being reported. Such figures may be somewhat optimistic in certain populations based on intellect, education, motivation and access to a comprehensive myelomeningocele program.

Social Adjustment and Job Placement. The few comprehensive studies that have been done looking at overall success in life generally do not show a favorable outcome. Most patients remain socially isolated and few are gainfully employed in the open market place.¹⁰ A comparative group of cerebral palsy patients with similar levels of function and lower IQ's were found to actually do better! Add to this the much higher incidence of divorce in families to which a child with myelomeningocele is born, and the personal and social toll is staggering.

For the Future

The ultimate determinant of outcome in myelomeningocele is the degree of personal, social, financial, and medical support the patient receives after the neonatal period. Even with the best of these, deficits in intellect and learning ability will be left for which there is no treatment available. Society finds itself in a position where legislation mandates more care regardless of "quality of life" at a time when less resources are being allocated for what must be a life-long commitment to supportive care.

While such issues need to be attended to, the real thrust in myelomeningocele may be in the area of better prenatal diagnosis and possible treatment to prevent this devastating lesion before it occurs. Screening populations at risk as well as devising cheaper, more readily available tests for prenatal diagnosis in general populations are needed. Equally important is identifying the genetic and environmental/toxic hazards that also contribute to the development of myelomeningocele. Treatment such as folic acid needs further evaluation with the caveat that such reports of a miracle cure have appeared before only to fail the test of scientific scrutiny.

★★★

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MYELOMENINGOCELE/Hansen

Acknowledgement

Contributors wish to express appreciation to the editors for encouragement in pursuing this project, and to other members of the Mississippi Children's Rehabilitation Center Medical Staff who assisted with review and organization.

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The President Speaking

Member Support Is Essential

W. LAMAR WEEMS, M.D.
Jackson, Mississippi

Within a few days of the time that this piece is penned, I will be installed as president of the Mississippi State Medical Association. I consider this title to be the highest honor of my professional career because I have such high regard for the physicians in Mississippi who elected me to the job and because of my admiration of the men who have occupied the position before me. I especially prize the opportunity to participate in the effort to shape the future of medical practice in Mississippi.

In the ensuing President's Messages this year, I will try to stick to issues which are of practical importance. In this initial greeting, however, I want to set a philosophical tone. My personal testimony is that I have great affection for the profession of medicine in the highest sense of professionalism. The practice of medicine has been kind and generous to me; tho, it has not always been gentle. Financial rewards have been more than adequate and I have received continuous nourishment of morale by grateful patients and respectful colleagues. Along with these benefits have also come harsh demands upon time and emotional energy. To practice medicine has been an awesome endeavor in which the challenge has always exceeded ability to respond; at once a humbling as well as an ennobling experience. I imagine that this personal statement of mine could apply to nearly all physicians. It seems to me that physicians who demean the importance of the intangible values in medicine demean themselves; for the real significance of life is not to be found only in material rewards.

Doctor-patient relationships entail more than mere financial transactions. These relationships are at the heart of professionalism and deserve to be defended by physicians on selfless as well as selfish grounds. Unfortunately, the influence of physicians is waning in the health care system, placing professionalism in serious jeopardy. Our old defenses will not work in the new environment because the environment of medicine is undergoing revolutionary change. Physicians individually and in the aggregate must adapt to change. MSMA has plans to try to maintain the influence of physicians in the system in these changing times. Plans have been thoughtfully developed and painstaking efforts are being made to implement them. You will hear the message over and over again from me this year that the support of the membership is essential.

EDITORIALS

JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVIII, NUMBER 6
JUNE 1987

State Legislature And Tort Reform

After reading every article available to me on the liability crisis, listening to radio discussions, and hearing and seeing television programs devoted to this problem, I can see only one solution.

Frequently we blame the insurance companies. This is ridiculous. Insurance is a competitive business. Because of outrageously high awards, only a few of the very largest companies remain in business. As the suppliers get fewer, they are in a better bargaining position, and I am sure that they may well exploit the market as much as possible, but this is not the culprit.

Never, except under the most unusual circumstances, should any punitive damages be allowed. When negligence is proven, all agree that compensation should be made for costs of recovery and for expenses and loss of time; but unless willful intent to defraud or injure is proven, no punitive damages should ever be awarded.

We have allowed lawyers to make laws serving their own selfish interests. We have permitted lawyers to legitimize theft. With the exception of a few proven statesmen, such as Bob Montgomery, no lawyer should be in the legislature.

Our only hope of reform is to get the lawyers out of the legislative process. We must persuade businessmen to run for office and elect them. I feel as Will Rogers did — the less legislation the better. We have too many laws, too many lawyers, too many lawsuits, and too much greed.

W. MONCURE DABNEY, M.D.
Editor Emeritus

Editor's Note: Apparently, the Mississippi Trial Lawyers Association does not agree with Dr. Dabney. Recent reports indicate that MTLA is soliciting ten thousand dollars (\$10,000.00) per member,

or in the alternative, one hundred dollars (\$100.00) for each year the member has practiced law, with the stated purpose being to elect lawyers (or laymen) to the legislature who will vote to preserve the legal system and who will fight efforts to reform the tort laws of Mississippi.

MSMA and the other business and professional groups who sought tort reform obviously need to be prepared to meet this challenge. Matching dollars with the trial lawyers would be nice. However, that will be difficult. Where physicians can make the most difference is in talking with each patient about supporting appropriate candidates for the legislature. MMPAC will be evaluating and supporting various candidates. For information on candidates in your area, call the MSMA office.

Drug Utilization Review Program Successful, Cost Effective

The goal of the Mississippi Medicaid Drug Utilization Review (DUR) Program is to reduce the number of drug therapy related complications through a therapeutically based review process. The program has been in operation for over two years and was initiated through the cooperative efforts of the Mississippi State Medical Association, the Mississippi Medical and Surgical Association, the Mississippi Pharmacists Association, and the Division of Medicaid — Office of the Governor. State and federal agencies jointly fund the program.

The program is clearly successful. A post-implementation analysis indicates that the number of drug therapy problems in the Medicaid patient population has been reduced by almost 5,000 in the first two years of program operation. Drug therapy related hospitalizations have been reduced by almost 300 admissions. (Studies indicate that 10% to 17% of

EDITORIAL/Continued

all U.S. hospital admissions of the elderly are due to drug therapy problems.) With a cost of about one nickel per month per recipient, the program has proven to be cost effective.

While these statistics are very favorable, perhaps most gratifying for those involved in the program is the realization that drug therapy can be positively influenced in specific patient cases through a properly conducted drug utilization review process. The strongly positive overall response from physicians contacted through the program has also been very encouraging.

Data submitted in the form of physician and pharmacy provider claims is screened by computer against therapeutic criteria. These criteria were developed in cooperation with a committee of physicians and pharmacists who practice in Mississippi. Instances of drug therapy which are exceptions to the therapeutic criteria cause a patient profile to be generated. Each such profile indicates: patient demographics; physician services; diagnoses; drug names, strengths, and quantities; and dates of service. *No patient, physician, or pharmacy names appear on the patient history profiles.* Instead, recipients and providers are identified only by numeric code. Importantly, no data is accumulated on a per physician basis.

The profiles are reviewed monthly on a blind study basis by regional committees of practicing physicians and pharmacists. Should a patient profile contain information which the committees feel may be useful to the providers, a copy of the profile is sent to the patient's physician(s) along with a letter requesting their evaluation and use of the information as may be appropriate in their judgment. A brief response is also requested so that the committee will be made aware of any action taken.

The Mississippi Medicaid Drug Utilization Review Program is aimed at sharing information among professionals which may be utilized at the discretion of and in the best judgment of each patient's physician(s). This concise, easy-to-use information might not otherwise be available. The personal familiarity with the patient that is usually enjoyed by the practitioner compliments the information favorably. Those involved in the DUR process are keenly aware of the need for individualized drug therapy based on factors unique to a specific patient. They fully respect the prerogative and judgment of the attending physician(s).

By the nature of a review of this magnitude, the

therapeutic criteria must be drawn from standard references which address drug therapy management in the typical patient. Of course, there are exceptions and a number of exceptional cases have been reported to us. There have been many, many more responses that expressed appreciation for the succinctly summarized data that revealed the use of multiple physicians, human oversight, patient non-compliance with physician instructions, and/or information about possible drug side effects, interactions or contraindications.

Should you receive information from the Drug Utilization Review Committee, please evaluate it and use it as you deem appropriate. A response from you would be appreciated. The practicing physicians involved in the review process are trying to be of help to you and your patient. They do so for essentially no remuneration and often are at risk of unintentionally offending a colleague. The clear, thoughtful responses received from so many of you reaffirm my sincere belief that Medicine in Mississippi is curing and caring!

Thank God I'm a physician.

JOE JOHNSTON, M.D.
Associate Editor

LETTERS

TO DR. JOHNSON:

Regarding your editorial "State Bird: The Albatross" in the February issue, I quote from the second paragraph: "A recent check at our (Laurel) state hospital showed that only one physician was licensed to practice medicine by the State Board of Medical Licensure. The others had their licenses waived in order for them to practice there."

I must inform you that of the physicians on the staff at the South Mississippi State Hospital in Laurel, one is a Mississippi physician with a regular license, five are assignees from the U.S. Public Health Service with regular licenses, and five are graduates of foreign medical schools with limited insitutional licenses. All of these licenses are current and in good standing.

Needless to say, all of these licenses to practice medicine in Mississippi were issued by the State Board of Medical Licensure.

FRANK J. MORGAN, JR., M.D.
Director
Board of Medical Licensure

TO THE EDITORS:

In the February 1987 issue of JOURNAL MSMA, Dr. Johnston criticized the South Mississippi State Hospital and those physicians backing it. One would think his criticism is well founded on reading his editorial. His facts are grossly incomplete. To our knowledge he has never visited the hospital and consequently his conclusions are expectedly faulty.

Since the South Mississippi State Hospital at Laurel has been discussed, let us look at the facts.

The staff of this hospital has five foreign medical graduates licensed to practice only in institutions. It should be pointed out that some of these physicians are extremely competent and could easily pass state licensure exams, but must have three years of approved residency training to become eligible. Two of the five have secured a residency next year at the University Hospital. In addition, our staff consists of the following board or board qualified physicians: two surgeons, one Ob-Gyn, one ophthalmologist, two cardiologists, one pathologist, three radiologists, two dentists, four pediatricians, one internist and two family practitioners.

As to quality care, each new and any old patient not doing well is presented in teaching rounds at 7:00 a.m. daily, and every patient in the hospital is seen daily by a minimum of one licensed physician. All x-rays are read by a radiologist and all laboratory procedures are done under the direction of a pathologist. This system assures quality care, allowing all of the patients to be properly diagnosed and treated. Those requiring specialty care or tests not available are transferred to the University Medical Center in Jackson.

As to costs of hospital care for medical indigents: cost per day at South Mississippi State Hospital is \$182.10 including physician services; cost per day at area hospitals is \$430.00 to \$440.00 per day excluding physician services; cost per day at University Hospital is not available, but they saw 22,202 in-patients and the legislature appropriated \$20,858,270.00. Their collections were \$53,939,540.00 this past year. The per day costs are obviously much higher than the above hospitals. The Eleemosynary Hospitals had 9,818 in-patients and 84,859 out-patients and the state provided \$4,452,000.00 for the three hospitals.

If Eleemosynary Hospitals were closed and their appropriation allocated to hospital indigents over the state, it would leave most of the cost of indigent care on paying patients, the only source of hospital income. The best figures available (Mississippi State Board of Health) revealed that 14% of Mississippians are poor and uninsured (this figure was before

the present high unemployment rate). If proper care is given the indigents, a minimum of 14% of hospital costs would have to be passed on to private patients. It is doubtful if any of the non-state supported hospitals are capable of carrying this load on private patients. Paying patients can ill afford this additional load on their hospitalization costs.

It is obvious that the Eleemosynary Hospitals should be expanded and strengthened. North Mississippi should have two such hospitals and the Gulf Coast should have one.

Our State Medical Association should name a very active committee to more completely evaluate the present system and to assist the legislature in improving medical care for medical indigents in Mississippi.

J. U. MORRISON, JR., M.D.
Medical Director
South Mississippi State Hospital
Laurel, MS 39441

(Ed. Note: The February editorial was based on an article describing a Joint Legislative Committee on Performance Evaluation and Expenditure Review [PEER] report which criticized the state's three charity hospitals. — J.E.J.)

COMMENT

Treatment of Poisonous Snakebite

(Ed. Note: The article "Surgical Management of Poisonous Snakebite," published in the March issue, generated a number of comments. The following remarks were written by H. Clark Ethridge, Jr., M.D. of Jackson. Dr. Ethridge has a particular interest in snakebites, and has treated more than 50 snakebite injuries in the past eight years.)

The article "Surgical Management of Poisonous Snakebite" demonstrates the difficulties most physicians face when dealing with controversial treatment problems. With snakebite in particular, there are three basic philosophies in this country.

- (1) Administration of antivenin to all but the most innocent of bites. Reported results — excellent.
- (2) Early surgical excision of affected tissues. Reported results — excellent.

COMMENT/Continued

- (3) Conservation management — symptomatic treatment, including antivenin or surgery, as indicated. Reported results — excellent.

Most physicians see only a few patients with snakebite envenomations; therefore, their method of treatment is often influenced by an occasional article on snakebite management read in either a peer-review journal or one of the multitude of "throw-aways" we receive each month. Their treatments may vary, reflecting any one of the above three principles, almost always with satisfactory results, as one may well imagine.

In talking to various groups on the management of snakebite in Mississippi, I have emphasized the need to develop a treatment philosophy that fits the type of poisonous snakes likely to cause envenomations in their area. When reading an article on treatment of snakebites, one should put as much emphasis on the following as on the treatment methods:

- (1) Author and region of the country where he practices.
- (2) Type of snake(s) causing the envenomations treated.
- (3) Author's type practice (primary care, regional or tertiary referral center).

Applying the above to Dr. Huang's article, there are few similarities between his patient base and most of the state of Mississippi. The University of Texas Medical Branch at Galveston is a tertiary referral center for southeastern Texas. Most of the snakebites seen are referred, difficult cases likely to require plastic surgery. (Dr. Huang has published

previously with emphasis on treatment of snakebites of the hand.) The most common offending snake in that area is the Western Diamondback rattlesnake, recognized as having some of the most necrotizing venom native to the U.S.

In contrast, most snakebites in Mississippi are inflicted by the copperhead and cottonmouth (water) moccasins. The Eastern Diamondback rattlesnake does reside in the southeastern counties of Mississippi, but bites by this seclusive snake, though serious, are extremely rare.

Through my consultant work with the Mississippi Poison Control Center and private practice, I have managed between 50 and 70 envenomated snakebites in this state over the last eight years, including severe envenomations requiring intensive-care level of management. None of these patients required antivenin or surgical excisions, and all healed without scars or functional impairment.

Surgical excision, as noted by Dr. Huang in his article, does leave scars, some functional impairment, and often scar contractures. Not mentioned were the risks the patient must bear undergoing anesthesia under emergency conditions, and the multiple anesthetics necessary for subsequent debridements, flaps, and grafts.

I agree there is a place for both surgical excision and antivenin in the overall scope of treating patients who have sustained a serious envenomation from a poisonous snake. In our state envenomations of this severity are rare, and an aggressive surgical (or antivenin) approach to all snakebites would be a gross over-treatment, subjecting many patients to unnecessary risks, complications, and costs.

H. CLARK ETHRIDGE, JR., M.D.
Jackson, MS

Patient Information Brochures/Services Available from MSMA

- "CommuniCare" Brochures
- Health Care Cost Brochures
- Patient Survey Forms
- "Changes in Health Care: What Your Family Should Know"
- AIDS Speaker Bureau

MEDICAL ORGANIZATION

Dr. Weems Takes Office As MSMA President

Dr. W. Lamar Weems of Jackson has assumed the post of 1987-88 president of the MSMA, succeeding Dr. W. Joseph Burnett of Oxford. Dr. Weems' inauguration took place in Biloxi at the June 7 session of the House of Delegates, which concluded the association's 119th Annual Session.



Dr. Weems

Dr. Weems, who also serves as MSMA's senior delegate to the American Medical Association, is professor of surgery and director of the urology division at the University of Mississippi Medical Center.

Recently he received the National Kidney Foundation's Distinguished Service Award. He has served as national chairman of the Foundation's Council on Urology, the highest volunteer position in the field of urology in that organization. He also has served as president, vice-president and medical advisory chairman of the National Kidney Foundation of Mississippi.

Dr. Weems is past president of the American Association of Clinical Urologists, the Southeastern Section of the American Urological Association, and Central Medical Society. He has served as chairman of the American Urological Association's Council on Medical Education and as a member of the Advisory Committee on Allied Health Professions of the AMA's Council on Medical Education. In 1985 he was appointed to a three-year term on the American Hospital Association's Council on Hospital Medical Staffs. He also has served as chairman of the board of directors of the Mississippi Foundation for Medical Care.

A fellow of the American College of Surgeons, Dr. Weems holds membership in the American Association of University Urologists, American Trauma Society, Mississippi Urological Society, the Society of Pelvic Surgeons, and Southern Medical Association.

In 1981 the MSMA presented Dr. Weems with the association's Community Service Award in recognition of his many contributions to civic and char-

itable organizations, particularly his involvement with education of the deaf.

Dr. Weems graduated from Forest High School, East Central Junior College, and Millsaps College. He earned the M.D. degree from Baylor University. He and his wife Nanette reside in Jackson, and they are the parents of four children.

MPHP Submits COA Application

The Mississippi Physicians Health Plan (MPHP), an MSMA-sponsored HMO/IPA, has applied to the Mississippi Department of Health for a license to begin operations in the state.

The MPHP Certificate of Authority was filed on April 8. The review process should be completed and the license issued within sixty days. Group sales and subscriber enrollment will begin immediately afterward.

Dr. Godbey Receives MLA Award



Marian W. Godbey, M.D., right, of Aberdeen received the 1987 Mississippi Lung Association Distinguished Service Award. Roland B. Robertson, Jr., M.D., left, made the presentation recently in Jackson at the MLA's 74th annual meeting.



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PERSONALS

GEORGE ABRAHAM of Vicksburg discussed allergies at a Family Medicine Clinic seminar recently.

HOLLAND ADDISON and GEORGE PATTON of Jackson discussed annual medical checkups at a lecture for HealthLine/St. Dominic's.

PAUL ALLEN of Pascagoula was lecturer at recent meetings of the Jackson County Youth Court Volunteers and the Krewe of Tri Cities.

GENE BARRETT, J. PATRICK BARRETT, and ROBERT SMITH, all of Jackson, recently received Role Model Awards presented by the Citizens High School Student Development Fund, Inc.

THOMAS BARNES, ROBERT BOWMAN, BILL DOWDY, and BENELLA OLTREMARI of Greenville were speakers at a recent seminar on breast cancer.

JOHN R. BISE, III of Jackson attended the recent annual meeting of American Society for Laser Medicine and Surgery at San Francisco.

MICHAEL J. BOLAND of UMC has been elected to serve as governor for the state of Mississippi by the American College of Cardiology's Board of Trustees.

A. B. BRITTON of Jackson has been recertified by the American Academy of Family Physicians.

WILLIAM R. BROWN of Corinth and Louisville has been elected a fellow of the International College of Surgeons in Neurological Surgery — U. S. Section and recently attended the convocation ceremony in Washington, DC.

JOHN D. BURK of Tupelo attended an Operative Cutaneous Laser Surgery Workshop directed by Philip L. Bailin, M.D. and John Ratz, M.D., both of Cleveland Clinic, Ohio.

WALTER W. CRAWFORD of Tylertown has been recertified by the American Academy of Family Physicians.

VERNON W. DOSTER of Brookhaven spoke on women's health care at a meeting of the Business and Professional Women's Club.

MARTIN L. DALTON of UMC and VA Medical Center has been appointed Southeastern Surgical Congress Councilor for the State of Mississippi.

RICHARD J. FIELD, JR., of Centreville represented the American College of Surgeons at the Health

Policy Forum at George Washington University in Washington, DC, and at the American Pediatric Surgical Association meeting in Hilton Head, South Carolina.

J. D. FLY of Jackson on treatment of ocular complications in diabetic persons at the annual meeting of the American Diabetes Association-Mississippi Affiliate.

ALAN FREELAND has been elected chief of medical staff at UMC. THOMAS BLAKE was named vice chief of staff.

RAYMOND GRENFELL of Jackson spoke on diabetes for a recent seminar sponsored by HealthLine/St. Dominic.

Hattiesburg Clinic announces the opening of The Center for Sexual Disorders at 2802 Mamie Street in Hattiesburg. RICHARD A. JOHNSON and RANDOLPH J. ROSS will serve as medical directors.

BARRY HOLCOMB of Vicksburg spoke on "Immunotherapy with Diabetes" at Mercy Regional Medical Center.

L. G. HOPKINS of Oxford has established the Chi Omega Memorial Trauma Fund in memory of Nannie Morgan of Oxford and Chi Omega sorority sisters who died in a recent accident. The fund will benefit Oxford Lafayette Medical Center's trauma department.

GERRY ANN HOUSTON has associated with Jackson Oncology Associates, 500-B East Woodrow Wilson in Jackson, for the practice on hematology and oncology in association with GUY T. GILLESPIE, JR., VAN L. LACKEY, and MACK C. FURR.

JACK HUDSON of Hattiesburg spoke on hypertension at a program at Methodist Hospital.

M. GLENN HUNT has established his office for the practice of pediatrics at 2160 South Lamar Boulevard in Oxford.

MICHAEL E. JABALEY of Jackson, president of the American Society for Surgery of the Hand, recently led a delegation of American surgeons to Caracas, Venezuela to participate in the fourth Pan American Congress of Hand Surgery, was hosted by the Venezuelan Hand Society and jointly sponsored with the Caribbean Hand Society. Dr. Jabaley organized and moderated a panel on "Peripheral Nerve Injuries" and presented a paper on "Internal Fixation of Fractures of the Hand."

PERSONALS/Continued

JOSEPH E. JOHNSTON of Mount Olive has been elected to a five-year term on the Board of Directors of the American Board of Family Practice.

ROBERT JORDEN of UMC recently was visiting professor at the University of Alabama in Birmingham.

HERMAN E. KELLUM of Port Gibson was speaker at a seminar on women's health in Vicksburg. He spoke on hazards of overexposure to the sun.

DON LAGRONE of Biloxi spoke on "Teaching Your Children About Sex and AIDS" at a seminar in Biloxi recently.

HERBERT LANGFORD of UMC was recognized at the National Conference on High Blood Pressure Control in Las Vegas for his work in hypertension research.

J. O. MANNING and ALBERT L. MEENA, both of Jackson, have been named to the University of Mississippi Alumni Association Board of Directors.

WILLIAM T. MAYER of McComb has been recertified by the American Academy of Family Physicians.

FRED L. MCMILLAN of Jackson recently was a World Eye Foundation visiting professor of ophthalmology in La Paz, Cochabamba and Santa Cruz, Bolivia.

FRANCIS S. MORRISON of UMC was installed as president of the South Central Association of Blood Banks at the annual meeting in Austin, Texas.

JOHN MORRISON of UMC was guest speaker at a meeting of the Nevada Ob-Gyn Society in Reno, and lectured to Blue Cross/Blue Shield of California representatives at a San Francisco meeting.

ROBERT MYERS of Starkville has been certified as a diplomate of the American Board of Urology.

WILLIAM NICHOLAS of UMC spoke on diabetes at a meeting of the Greenville Chapter of the American Diabetes Association and on estrogen replacement therapy at a meeting of the hospital staff of Jones County Hospital in Laurel.

RALPH D. PEELER, III of Senatobia announces the closing of his practice and his relocation to Atlanta.

MAX L. PHARR of Jackson has been recertified by the American Academy of Family Physicians.

OWEN PHILLIPS of Pascagoula has been certified as a diplomate of the American Board of Obstetrics and Gynecology.

JAMES RISER of Picayune spoke on colon cancer at a seminar presented by Crosby Memorial Hospital.

JOE ROSS, JR. of Vicksburg has been named interim chairman of the Mississippi Board of Education.

RANDOLPH ROSS of Hattiesburg recently was named clinical assistant professor of urology at Tulane University.

RANDY RUSSELL has assumed the practice of JOHN J. WHITE of Jackson, who is retiring from the practice of ophthalmology.

WILLIAM L. SAFLEY announces the opening of his office for the practice of cardiac, thoracic and vascular surgery at 1403 43rd Avenue in Gulfport.

JOSEPH F. SCHNEIDER, JR. of Meridian spoke on "Cancer and You" at a meeting of the district Extension Homemakers Club at Jones County Junior College in Ellisville.

NATHAN SHAPPLEY of Hattiesburg recently spoke at an Ostomy Support Group meeting at Methodist Hospital.

WILLIAM A. SPENCER of Oxford has been recertified by the American Academy of Family Physicians.

HANS KARL STAUSS of Jackson was honored as an outstanding alumnus at Founders' Day ceremonies at Chamberlain-Hunt Academy in Port Gibson.

DAVID THOMAS of UMC moderated a case discussion demonstrating interdisciplinary geriatric health care at the Mississippi Joint Conference on Aging in Biloxi.

WILL P. THOMPSON of Yazoo City has been recertified by the American Academy of Family Physicians.

BILLY WALKER of Jackson was visiting pathologist at the George Washington University Medical Center in Washington, DC.

W. LAMAR WEEMS of UMC was visiting professor for the New Mexico Urology Association in Albuquerque.

JOHN J. WHITE of Jackson recently lectured to the Flying Physicians Association at Salt Lake City on Tetraodontidae poisoning. Dr. White is a scuba diver, particularly interested in marine toxicology.

CURTIS WHITTINGTON, JR. of Vicksburg discussed "The Eye and Lupus" at a Jackson meeting of the Lupus Foundation of America, Central Mississippi Chapter.

WHAT TO TELL YOUR PATIENTS ABOUT SEXUAL IMPOTENCE:

HELP IS AVAILABLE.

If you have patients who are suffering from sexual impotence, tell them about the Impotence Evaluation Program at AMI Garden Park Community Hospital.

The Impotence Evaluation Program can help you help your patients. The two-day testing program is designed to identify the psychological or physical causes of impotence and to chart an appropriate course of treatment. Tests are administered by a specially trained staff under close supervision of expert physicians. As the referring professional, you will receive complete reports and treatment recommendations. You'll have the information you'll need to evaluate treatment alternatives. And you'll have a

resource for psychological counseling, sex therapy and surgical implantation procedures—AMI Garden Park Community Hospital.

A referral to the Impotence Evaluation Program is one you can make with complete confidence. And your patients can be sure that their participation in the program will be completely confidential.

You can help sexually impotent patients through the Impotence Evaluation Program at AMI Garden Park Community Hospital.

Call Nurse Rose Bohannon at 1-800-433-7957 (outside Mississippi) or 1-800-345-6921 (inside Mississippi) for a brochure or for more information about referrals.

 **AMI** Garden Park
Community Hospital

The Impotence Evaluation Program

AMI Garden Park Community Hospital ♦ 1520 Broad Avenue ♦ Gulfport, Mississippi 39501

NEW MEMBERS

ADAMS, DENNIS, Mendenhall. Born New York City, Jan. 19, 1951; M.D., New York Medical College, NY, NY 1972; one year internship, Harlem Hospital, NY, elected by Central Medical Society.

EAKES, DAVID L., Columbus. Born Philadelphia, MS, April 27, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and pediatric residency, University Medical Center, Jackson, 1983-86; elected by Prairie Medical Society.

OWENS, CYNTHIA D., D.O., Pascagoula. Born Detroit, MI, March 14, 1952; D.O., Michigan State University College of Osteopathic Medicine, East Lansing, 1979; interned and medical residency, Michigan Osteopathic Medical Center, Detroit, 1979-84; elected by Singing River Medical Society.

RAMSEY, CALVIN, Jackson. Born Brookhaven, MS, Dec. 22, 1949; M.D., University of Pittsburgh School of Medicine, Pittsburgh, PA, 1976; interned and medicine residency, University Medical Center, Jackson, MS, 1976-79; elected by Central Medical Society.

SHUMSKI, EDWARD J., JR., Natchez. Born New Orleans, Sept. 8, 1946; M.D., University of Mississippi School of Medicine, Jackson, 1975; interned and pathology residency, Brooke Army Medical Center, Ft. Sam Houston, TX, 1976-70; elected by Homochitto Valley Medical Center.

SIMMONS, EVERITT N., Columbus. Born Philadelphia, MS, March 24, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned, one year, Keesler Medical Center, Keesler AFB, MS, 1979-80; elected by Prairie Medical Society.

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A woman with dark hair, wearing a bright orange button-down shirt and dark trousers, sits alone at a small white metal table in a cafe. She is looking down with a somber expression. The cafe has many similar empty tables and white metal chairs with heart-shaped backs. The background is a dark, textured wall.

"Living in the city
is lonely enough...
with herpes it's like
solitary confinement."

ZOVIRAX[®] (acyclovir) CAPSULES

**Prevent genital herpes
recurrences
month after month with
daily therapy.**

(In controlled studies, recurrences were
totally prevented for 4 to 6 months in up to
75% of patients.)

*Please see last page of this advertisement for
brief summary of prescribing information.*

ZOVIRAX® (acyclovir) CAPSULES

**Help free your
patients from
recurrences.**

Daily therapy

Coping with genital herpes is rarely easy. For some, the worst part is the pain and discomfort of frequent attacks — month after month, year after year. For others, the emotional burden presents a more difficult problem, leading to social isolation, anxiety, and diminished self-esteem.

Prevent or reduce recurrences

Although your patients have to live with herpes, they shouldn't have to suffer. Daily therapy with ZOVIRAX CAPSULES can help free them from the cycle of recurrent genital herpes. For many, one capsule three times a day can suppress recurrences completely while on therapy.

Generally well tolerated

Daily therapy with ZOVIRAX CAPSULES is generally well tolerated. The most frequent adverse reactions reported during clinical trials were headache, diarrhea, nausea/vomiting, vertigo, and arthralgia.

The physical and emotional difficulties posed by genital herpes are unique for each patient. The frequency and severity of recurrent episodes, as well as the emotional impact of the disease, should be considered when selecting daily therapy with ZOVIRAX CAPSULES.

*Please see brief summary of
prescribing information on next page.*



Prevent recurrences month after month* **ZOVIRAX®** (acyclovir) **CAPSULES**

Brief Summary

INDICATIONS AND USAGE: Zovirax Capsules are indicated for the treatment of initial episodes and the management of recurrent episodes of genital herpes in certain patients.

The severity of disease is variable depending upon the immune status of the patient, the frequency and duration of episodes, and the degree of cutaneous or systemic involvement. These factors should determine patient management, which may include symptomatic support and counseling only, or the institution of specific therapy. The physical, emotional and psychosocial difficulties posed by herpes infections as well as the degree of debilitation, particularly in immunocompromised patients, are unique for each patient, and the physician should determine therapeutic alternatives based on his or her understanding of the individual patient's needs. Thus Zovirax Capsules are not appropriate in treating all genital herpes infections. The following guidelines may be useful in weighing the benefit/risk considerations in specific disease categories:

First Episodes (primary and nonprimary infections)—commonly known as initial genital herpes):

Double-blind, placebo-controlled studies have demonstrated that orally administered Zovirax significantly reduced the duration of acute infection (detection of virus in lesions by tissue culture) and lesion healing. The duration of pain and new lesion formation was decreased in some patient groups. The promptness of initiation of therapy and/or the patient's prior exposure to Herpes simplex virus may influence the degree of benefit from therapy. Patients with mild disease may derive less benefit than those with more severe episodes. In patients with extremely severe episodes, in which prostration, central nervous system involvement, urinary retention or inability to take oral medication require hospitalization and more aggressive management, therapy may be best initiated with intravenous Zovirax.

Recurrent Episodes:

Double-blind, placebo-controlled studies in patients with frequent recurrences (6 or more episodes per year) have shown that Zovirax Capsules given for 4 to 6 months prevented or reduced the frequency and/or severity of recurrences in greater than 95% of patients. Clinical recurrences were prevented in 40 to 75% of patients. Some patients experienced increased severity of the first episode following cessation of therapy; the severity of subsequent episodes and the effect on the natural history of the disease are still under study.

The safety and efficacy of orally administered acyclovir in the suppression of frequent episodes of genital herpes have been established only for up to 6 months. Chronic suppressive therapy is most appropriate when, in the judgement of the physician, the benefits of such a regimen outweigh known or potential adverse effects. In general, Zovirax Capsules should not be used for the suppression of recurrent disease in mildly affected patients. Unanswered questions concerning the human relevance of *in vitro* mutagenicity studies and reproductive toxicity studies in animals given very high doses of acyclovir for short periods (see Carcinogenesis, Mutagenesis, Impairment of Fertility) should be borne in mind when designing long-term management for individual patients. Discussion of these issues with patients will provide them the opportunity to weigh the potential for toxicity against the severity of their disease. Thus, this regimen should be considered only for appropriate patients and only for six months until the results of ongoing studies allow a more precise evaluation of the benefit/risk assessment of prolonged therapy.

Limited studies have shown that there are certain patients for whom intermittent short-term treatment of recurrent episodes is effective. This

approach may be more appropriate than a suppressive regimen in patients with infrequent recurrences.

Immunocompromised patients with recurrent herpes infections can be treated with either intermittent or chronic suppressive therapy. Clinically significant resistance, although rare, is more likely to be seen with prolonged or repeated therapy in severely immunocompromised patients with active lesions.

CONTRAINDICATIONS: Zovirax Capsules are contraindicated for patients who develop hypersensitivity or intolerance to the components of the formulation.

WARNINGS: Zovirax Capsules are intended for oral ingestion only.

PRECAUTIONS: General: Zovirax has caused decreased spermatogenesis at high doses in some animals and mutagenesis in some acute studies at high concentrations of drug (see PRECAUTIONS—Carcinogenesis, Mutagenesis, Impairment of Fertility). The recommended dosage and length of treatment should not be exceeded (see DOSAGE AND ADMINISTRATION).

Exposure of Herpes simplex isolates to acyclovir *in vitro* can lead to the emergence of less sensitive viruses. The possibility of the appearance of less sensitive viruses in man must be borne in mind when treating patients. The relationship between the *in vitro* sensitivity of Herpes simplex virus to acyclovir and clinical response to therapy has yet to be established.

Because of the possibility that less sensitive virus may be selected in patients who are receiving acyclovir, all patients should be advised to take particular care to avoid potential transmission of virus if active lesions are present while they are on therapy. In severely immunocompromised patients, the physician should be aware that prolonged or repeated courses of acyclovir may result in selection of resistant viruses which may not fully respond to continued acyclovir therapy.

Drug Interactions: Co-administration of probenecid with intravenous acyclovir has been shown to increase the mean half-life and the area under the concentration-time curve. Urinary excretion and renal clearance were correspondingly reduced.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Acyclovir was tested in lifetime bioassays in rats and mice at single daily doses of 50, 150 and 450 mg/kg given by gavage. There was no statistically significant difference in the incidence of tumors between treated and control animals, nor did acyclovir shorten the latency of tumors. In *2 in vitro* cell transformation assays, used to provide preliminary assessment of potential oncogenicity in advance of these more definitive life-time bioassays in rodents, conflicting results were obtained. Acyclovir was positive at the highest dose used in one system and the resulting morphologically transformed cells formed tumors when inoculated into immunosuppressed, syngeneic, weanling mice. Acyclovir was negative in another transformation system considered less sensitive.

In acute studies, there was an increase, not statistically significant, in the incidence of chromosomal damage at maximum tolerated parenteral doses of 100 mg/kg acyclovir in rats but not Chinese hamsters; higher doses of 500 and 1000 mg/kg were clastogenic in Chinese hamsters. In addition, no activity was found after 5 days dosing in a dominant lethal study in mice. In 6 of 11 microbial and mammalian cell assays, no evidence of mutagenicity was observed. At 3 loci in a Chinese hamster ovary cell line, the results were inconclusive. In 2 mammalian cell assays (human lymphocytes and L5178Y mouse lymphoma cells *in vitro*), positive responses for mutagenicity and chromosomal damage occurred, but only at concentrations at least 400 times the acyclovir plasma levels achieved in man.

Acyclovir has not been shown to impair fertility or reproduction in mice (450 mg/kg/day, p.o.) or in rats (25 mg/kg/day, s.c.). At 50 mg/kg/day s.c. in the rat, there was a statistically significant increase in post-implantation loss, but no concomitant decrease in litter size. In female rabbits treated subcutaneously with acyclovir subsequent to mating, there was a statistically significant decrease in implantation efficiency but no concomitant decrease in litter size at a dose of 50 mg/kg/day. No effect upon implantation efficiency was observed when the same dose was administered intravenously. In a rat perinatal study at 50 mg/kg/day s.c., there was a statistically significant decrease in the group mean numbers of corpora lutea, total implantation sites and live fetuses in the F₁ generation. Although not statistically significant,

phant, there was also a dose-related decrease in group mean numbers of live fetuses and implantation sites at 12.5 mg/kg/day and 25 mg/kg/day, s.c. The intravenous administration of 100 mg/kg/day, a dose known to cause obstructive nephropathy in rabbits, caused a significant increase in fetal resorptions and a corresponding decrease in litter size. However, at a maximum tolerated intravenous dose of 50 mg/kg/day in rabbits, there were no drug-related reproductive effects.

Intraperitoneal doses of 320 or 80 mg/kg/day acyclovir given to rats for 1 and 6 months, respectively, caused testicular atrophy. Testicular atrophy was persistent through the 4-week post-dose recovery phase after 320 mg/kg/day; some evidence of recovery of sperm production was evident 30 days postdose. Intravenous doses of 100 and 200 mg/kg/day acyclovir given to dogs for 31 days caused aspermatogenesis. Testicles were normal in dogs given 50 mg/kg/day, i.v. for one month.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Acyclovir was not teratogenic in the mouse (450 mg/kg/day, p.o.), rat (50 mg/kg/day, s.c.) or rabbit (50 mg/kg/day, s.c. and i.v.). There are no adequate and well-controlled studies in pregnant women. Acyclovir should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus. Although acyclovir was not teratogenic in animal studies, the drug's potential for causing chromosome breaks at high concentration should be taken into consideration in making this determination.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Zovirax is administered to a nursing woman. In nursing mothers, consideration should be given to not using acyclovir treatment or discontinuing breastfeeding.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS—Short-Term

Administration: The most frequent adverse reactions reported during clinical trials were nausea and/or vomiting in 8 of 298 patient treatments (2.7%) and headache in 2 of 298 (0.6%). Less frequent adverse reactions, each of which occurred in 1 of 298 patient treatments (0.3%), included diarrhea, dizziness, anorexia, fatigue, edema, skin rash, leg pain, inguinal adenopathy, medication taste and sore throat.

Long-Term Administration: The most frequent adverse reactions reported in studies of daily therapy for 3 to 6 months were headache in 33 of 251 patients (13.1%), diarrhea in 22 of 251 (8.8%), nausea and/or vomiting in 20 of 251 (8.0%), vertigo in 9 of 251 (3.6%), and arthralgia in 9 of 251 (3.6%). Less frequent adverse reactions, each of which occurred in less than 3% of the 251 patients (see number of patients in parentheses), included skin rash (7), insomnia (4), fatigue (7), fever (4), palpitations (1), sore throat (2), superficial thrombophlebitis (1), muscle cramps (2), paronychia (1), menstrual abnormality (4), acne (3), lymphadenopathy (2), irritability (1), accelerated hair loss (1), and depression (1).

DOSAGE AND ADMINISTRATION: Treatment of initial genital herpes: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 10 days (total 50 capsules).

Chronic suppressive therapy for recurrent disease: One 200 mg capsule 3 times daily for up to 6 months. Some patients may require more drug, up to one 200 mg capsule 5 times daily for up to 6 months.

Intermittent Therapy: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 5 days (total 25 capsules). Therapy should be initiated at the earliest sign or symptom (prodrome) of recurrence.

Patients With Acute or Chronic Renal Impairment: One 200 mg capsule every 12 hours is recommended for patients with creatinine clearance ≤ 10 ml/min/1.73 m².

HOW SUPPLIED: Zovirax Capsules (blue, opaque) containing 200 mg acyclovir and printed with "Wellcome ZOVIRAX 200". Bottles of 100 (NDC-0081-0991-55) and unit dose pack of 100 (NDC-0081-0991-56).

Store at 15°-30°C (59°-86°F) and protect from light.

*In controlled studies, recurrences were totally prevented for 4 to 6 months in up to 75% of patients.



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Many physicians would like to devote some time to their country in a local Army Reserve unit. We know that making a weekend commitment can be difficult for most physicians. So it is practical for the Army Reserve units to be flexible about time. It's worth discussing.

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The Army Reserve understands the time demands on a busy physician, so you can count on us to be totally flexible in making time for you to share your specialty with your country. We'll arrange your training program to work with your practice.

To find out about the benefits of serving with a nearby Army Reserve unit, we recommend you call our Army Medical Personnel Counselor.

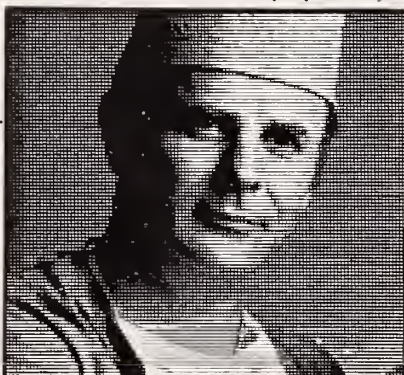
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Medico-Legal Brief

No Liability For Prospective Review

Should a third party payor be responsible for injuries resulting from improper review decisions? The AMA House of Delegates said yes in June, but a California Court of Appeal said no in a July 30 decision overturning a jury award of \$500,000 against Medi-Cal. The case involved a Medi-Cal beneficiary whose right leg was amputated above the knee following complications that developed after a physician reviewer authorized an additional four days in response to her physicians' request for eight days of hospitalization following vascular surgery.

Recognizing that the case might be the first attempt to tie a health care payor into the medical malpractice causation chain, the Court noted that the issues have profound importance to the health care community and the public. The Medi-Cal program required prospective utilization review or authorization for the provision of non-emergency health care services as a condition of payment. The court acknowledged that this kind of prospective review, unlike retrospective review that results in withholding of payment, can result in the withholding of necessary care with the potential that a beneficiary may suffer permanent disability or death.

The case began in 1976 when the patient was being treated by a family practitioner for problems with her back and legs. When the problem did not respond to conservative treatment, she was hospitalized and a vascular surgeon diagnosed her condition as arteriosclerosis obliterans with occlusion of the abdominal aorta just above the point where the aorta divides into two common iliac arteries. Following discharge, Medi-Cal authorized the surgery and 10 days of hospitalization.

The surgery was performed on January 7 and a return to surgery was necessitated that day for removal of a clot in the right leg and resewing of the graft in the right groin. The patient had a "stormy" postoperative period with leg pain, spasms in the leg vessels as well as hallucinating episodes. On January 12, a lumbar sympathectomy was performed to relieve the spasms and prevent further clotting. Since the authorized days of hospitalizations were to expire January 17, a "Request for Extension for Stay in Hospital" form was completed by her physicians and submitted to Medi-Cal asking for eight additional days of hospitalization. The form was first reviewed by a nurse coordinator who could authorize but not deny continuation of hospitalization nor authorize a lesser number of days than requested. The nurse coordinator referred the

case to the physician Consultant employed by Medi-Cal telling him of the information on the form over the telephone. The Consultant general surgeon authorized four additional days of hospitalization. The form was required to contain sufficient information on the patient's diagnosis, significant history, clinical status and treatment plan to permit a reasonable, professional evaluation by either the nurse coordinator or the Medi-Cal Consultant.

The patient was discharged January 21 with instructions to use antibiotic powder on the groin incision, take warm baths, and be at bed rest. None of the three physicians treating her observed anything that looked threatening to the patient and it would either have been an exercise in futility to request a further extension from Medi-Cal or the request was not made because the Medi-Cal Consultants had the state's interest more in mind than the patient's welfare according to their testimony. All of the medical witnesses who testified at trial agreed that the physicians acted within the standards of practice of the medical community in discharging the patient on January 21, 1977.

In the first few days following discharge, the patient began experiencing pain in her right leg and she testified that the leg began first to lose color and then turned a greyish color and then bluish. In response to a telephone call from her husband, the family practitioner advised extra pain medicine should be taken. She was readmitted as an emergency case not requiring Medi-Cal authorization on January 30 and after futile efforts to save the leg, a below-the-knee amputation was performed February 8. When the condition did not heal, the leg was amputated above the knee on February 17.

At trial, the vascular surgeon testified that Medi-Cal's Consultant's rejection of the eight-day extension did not conform to usual medical standards since he did not see the patient, review the patient's chart, or discuss her condition with the treating physicians. Medi-Cal argued that failure to approve the request was not negligence as a matter of law; that the decision to discharge the patient was made by her three treating physicians based upon the prevailing standards of practice; and that Medi-Cal had no part in the decision to discharge and therefore Medi-Cal should not be held liable even if the decision to discharge the patient was made erroneously by her physicians.

The Court reviewed the California law on negligence and the exceptions. Applying the standards to the facts in issue, the Court concluded that the absence of foreseeability for harm to the plaintiff, the lack of closeness of the connection between the

MEDICO-LEGAL BRIEF/Continued

defendant's conduct and the injury suffered and other factors made it clear that Medi-Cal should be absolved from liability as a matter of law.

The Court did state, however: "The patient who requires treatment and who is harmed when care which should have been provided is not provided should recover for the injuries suffered from all those responsible for the deprivation of such care, including, when appropriate, health care payors. Third party payors of health care services can be held legally accountable when medically inappropriate decisions result from defects in the design or implementation of cost containment mechanisms as, for example, when appeals made on a patient's behalf for medical or hospital care are arbitrarily ignored or unreasonably disregarded or overridden. However, the physician who complies without protest with the limitations imposed by a third party payor, when his medical judgment dictates otherwise, cannot avoid his ultimate responsibility for his patient's care. He cannot point to the health care payor as the liability scapegoat when the conse-

quences of his own determinative medical decisions go sour."

This case has been appealed to the California Supreme Court and physicians will be eager to learn what, if any, additional lessons will be forthcoming. — *Wickline v. State of California*, 228 Cal. Rptr. 661 (Cal. Ct. of App., July 30, 1986) — B. J. Anderson, J.D., Associate General Counsel, AMA.

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In JOURNAL MSMA**

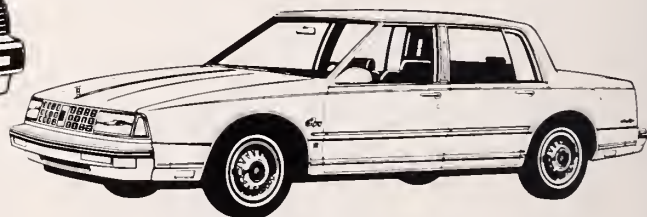
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ZANTAC® 150 h.s.

ranitidine HCl/Glaxo 150 mg tablets

EFFECTIVE MAINTENANCE THERAPY

for healed duodenal ulcer patients

See last page for references and
Brief Summary of Product Information.

Glaxo / 

CONFIRMED

In two randomized, double-blind, and well-controlled clinical trials, ZANTAC 150 mg h.s. significantly superior to cimetidine 400 mg h.s. for maintenance therapy in healed duodenal ulcers.

Percent of patients with observed duodenal ulcer recurrence

		0-4 months	0-8 months	0-12 months	No. patients
USA ¹	ranitidine 150 mg h.s.	9%	14%*	16%†	60
	cimetidine 400 mg h.s.	23%	34%	43%	66
UK, Ireland, Australia ²	ranitidine 150 mg h.s.	8%‡	14%‡	23%‡	243
	cimetidine 400 mg h.s.	21%	34%	37%	241

*p=0.02

†p=0.01

‡p<0.004

%=life-table estimates

All patients were permitted prn antacids for relief of pain.

These two trials used the currently recommended dosing regimen of cimetidine (400 mg h.s.) and ranitidine (150 mg h.s.). A comparison of other dosing regimens has not been studied.

The studied dosing regimens are not equivalent with respect to the degree and duration of acid suppression or suppression of nocturnal acid.

The superiority of ranitidine over cimetidine in these trials indicates that the dosing regimen currently recommended for cimetidine is less likely to be as successful in maintenance therapy.

Convenient once-a-night dose with a

low incidence of side effects³

Headache, sometimes severe, seems to be related to ranitidine administration. Other side effects have been reported; for a complete listing, see the ADVERSE REACTIONS section in the Brief Summary.

No significant interference with the hepatic cytochrome

P-450 enzyme system at recommended doses

ZANTAC 150 mg has no significant drug interactions with theophylline, phenytoin, or warfarin. The bioavailability of certain medications whose absorption is dependent on a low gastric pH may be altered when ZANTAC or other medications that decrease gastric acidity are administered.

Zantac[®] 150
ranitidine HCl/Glaxo 150 mg tablets

One tablet at bedtime
for maintenance

See next page for references and
Brief Summary of Product Information.

Glaxo /  **ROCHÉ**

CONFIRMED

Zantac[®] 150

ranitidine HCl/Glaxo 150 mg tablets

*One tablet at bedtime for maintenance therapy
in healed duodenal ulcer patients*

References:

1. Silvis SE, Griffin J, Hardin R, et al: Final report on the United States multicenter trial comparing ranitidine to cimetidine as maintenance therapy following healing of duodenal ulcer. *J Clin Gastroenterol* 1985;7(6):482-487.
2. Gough KR, Korman MG, Bardhan KD, et al: Ranitidine and cimetidine in prevention of duodenal ulcer relapse: A double-blind, randomised, multicentre, comparative trial. *Lancet* 1984;ii:659-662.
3. Data available on request, Glaxo Inc.

ZANTAC[®] 150 Tablets
(ranitidine hydrochloride)
ZANTAC[®] 300 Tablets
(ranitidine hydrochloride)

BRIEF SUMMARY OF PRODUCT INFORMATION

The following is a brief summary only. Before prescribing, see complete prescribing information in ZANTAC[®] product labeling.

INDICATIONS AND USAGE: ZANTAC[®] is indicated in:

1. Short-term treatment of **active duodenal ulcer**. Most patients heal within four weeks.
2. **Maintenance therapy** for duodenal ulcer patients at reduced dosage after healing of acute ulcers.
3. The treatment of **pathological hypersecretory conditions** (eg, Zollinger-Ellison syndrome and systemic mastocytosis).
4. Short-term treatment of **active, benign gastric ulcer**. Most patients heal within six weeks and the usefulness of further treatment has not been demonstrated.
5. Treatment of **gastroesophageal reflux disease (GERD)**. Symptomatic relief commonly occurs within one or two weeks after starting therapy and is maintained throughout a six-week course of therapy.

In active duodenal ulcer, active, benign gastric ulcer, hypersecretory states; and GERD, concomitant antacids should be given as needed for relief of pain.

CONTRAINDICATIONS: ZANTAC[®] is contraindicated for patients known to have hypersensitivity to the drug.

PRECAUTIONS: Symptomatic response to ZANTAC[®] therapy does not preclude the presence of gastric malignancy.

Since ZANTAC is excreted primarily by the kidney, dosage should be adjusted in patients with impaired renal function (see **DOSAGE AND ADMINISTRATION**). Caution should be observed in patients with hepatic dysfunction since ZANTAC is metabolized in the liver.

False-positive tests for urine protein with Multistix[®] may occur during ZANTAC therapy, and therefore testing with sulfosalicylic acid is recommended.

Although recommended doses of ZANTAC do not inhibit the action of cytochrome P-450 enzymes in the liver, there have been isolated reports of drug interactions which suggest that ZANTAC may affect the bioavailability of certain drugs by some mechanism as yet unidentified (eg, a pH-dependent effect on absorption or a change in volume of distribution).

Lack of experience to date precludes recommending ZANTAC for use in children or pregnant patients. Since ZANTAC is secreted in human milk, caution should be exercised when administered to a nursing mother.

ADVERSE REACTIONS: Headache, sometimes severe, seems to be related to ZANTAC[®] administration. Constipation, diarrhea, nausea/vomiting, and abdominal discomfort/pain have been reported. There have been rare reports of malaise, dizziness, somnolence, insomnia, vertigo, tachycardia, bradycardia, premature ventricular beats, and arthralgias. Rare cases of reversible mental confusion, agitation, depression, and hallucinations have been reported, predominantly in severely ill elderly patients.

In normal volunteers, SGPT values were increased to at least

twice the pretreatment levels in 6 of 12 subjects receiving 100 mg qid IV for seven days, and in 4 of 24 subjects receiving 50 mg qid for five days. With oral administration there have been occasional reports of reversible hepatitis, hepatocellular or hepatocanalicular or mixed, with or without jaundice.

There have been rare reports of reversible leukopenia, granulocytopenia, thrombocytopenia, and pancytopenia.

Although controlled studies have shown no antiandrogenic activity, occasional cases of gynecomastia, impotence, and loss of libido have been reported in male patients receiving ZANTAC, but the incidence did not differ from that in the general population.

Incidents of rash, including rare cases suggestive of mild erythema multiforme, and, rarely, alopecia, have been reported, as well as rare cases of hypersensitivity reactions (eg, bronchospasm, fever, rash, eosinophilia) and small increases in serum creatinine.

OVERDOSAGE: Information concerning possible overdose and its treatment appears in the full prescribing information.

DOSAGE AND ADMINISTRATION - Active Duodenal Ulcer: The current recommended adult oral dosage is 150 mg twice daily. An alternate dosage of 300 mg once daily at bedtime can be used for patients in whom dosing convenience is important. The advantages of one treatment regimen compared to the other in a particular patient population have yet to be demonstrated.

Maintenance Therapy: The current recommended adult oral dosage is 150 mg at bedtime.

Pathological Hypersecretory Conditions (such as Zollinger-Ellison Syndrome): The current recommended adult oral dosage is 150 mg twice a day. In some patients it may be necessary to administer ZANTAC 150-mg doses more frequently. Doses should be adjusted to individual patient needs, and should continue as long as clinically indicated. Doses up to 6 g/day have been employed in patients with severe disease.

Benign Gastric Ulcer: The current recommended adult oral dosage is 150 mg twice a day.

GERD: The current recommended adult oral dosage is 150 mg twice a day.

Dosage Adjustment for Patients with Impaired Renal Function: On the basis of experience with a group of subjects with severely impaired renal function treated with ZANTAC, the recommended dosage in patients with a creatinine clearance less than 50 ml/min is 150 mg every 24 hours. Should the patient's condition require, the frequency of dosing may be increased to every 12 hours or even further with caution. Hemodialysis reduces the level of circulating ranitidine. Ideally, the dosage schedule should be adjusted so that the timing of a scheduled dose coincides with the end of hemodialysis.

HOW SUPPLIED: ZANTAC[®] 300 Tablets (ranitidine hydrochloride equivalent to 300 mg of ranitidine) are yellow, capsule shaped tablets embossed with "ZANTAC 300" on one side and "Glaxo" on the other. They are available in bottles of 30 (NDC 0173-0393-40) and unit dose packs of 100 tablets (NDC 0173-0393-47).

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Store between 15° and 30° C (59° and 86° F) in a dry place. Protect from light. Replace cap securely after each opening.

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Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

PLACEMENT SERVICE / Continued

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MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 21-25, 1987, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 120th Annual Session, June 1-5, 1988, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 29-August 1, 1987, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrick, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. R. Ray Lyle, Secy., P.O. Box 1507, Starkville, MS 39759. Counties: Clay, Oktibbeha,

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly
Mississippi State Medical Association
735 Riverside Drive
Jackson, MS 39216

Mississippi Chapter
American College of Surgeons
Box 5229
Jackson, MS 39216

North Mississippi Medical Center
830 Gloster Avenue
Tupelo, MS 38801

North Panola County Hospital
Drawer 160
Sardis, MS 38666

Forrest General Hospital
Box 1897
Hattiesburg, MS 39401

Singing River Hospital
P.O. Box 112
Pascagoula, MS 39567

Mississippi Baptist Hospital
1225 N. State Street
Jackson, MS 39201

Magnolia Hospital
Alcorn Drive
Corinth, MS 38834

Gulf Coast Community Hospital
4642 W. Beach Boulevard
Biloxi, MS 39531

Greenwood Leflore Hospital
1508 Leflore Avenue
Greenwood, MS 38930

Jefferson Davis Memorial Hospital
Box 1488
Natchez, MS 39120

Gulfport Memorial Hospital
4500 13th Street
Gulfport, MS 39501

King's Daughter Hospital
Box 948
Brookhaven, MS 39601

Oxford-Lafayette County Hospital
P.O. Box 946
Oxford, MS 38655

Riverside Hospital
Lakeland Drive
Jackson, MS 39208

Biloxi Regional Medical Center
1559 Lafayette St.
Biloxi, MS 39533

Jeff Anderson Regional Medical Center
2124 14th St.
Meridian, MS 39301

Northwest Mississippi Regional Medical Center
Box 1218
Clarksdale, MS 38614

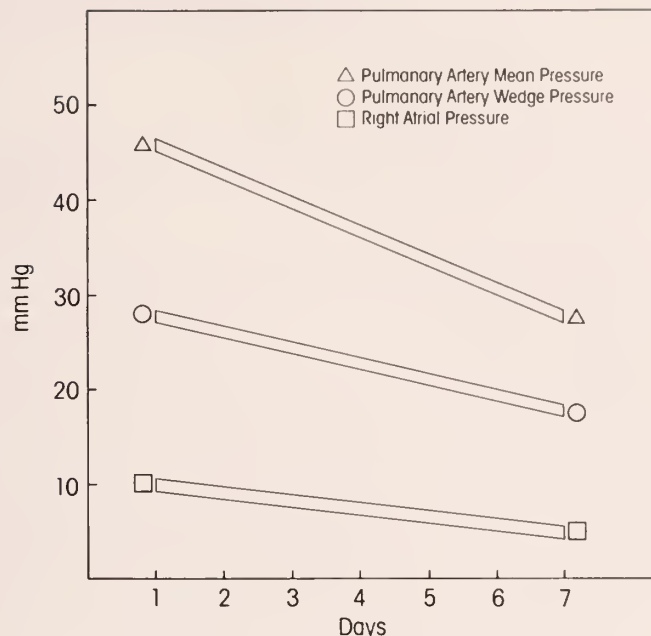
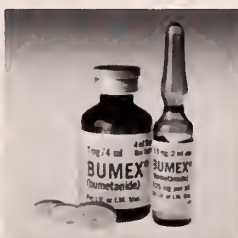
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References: 1. Olesen KH, *et al* *Postgrad Med J* 51(Suppl 6) 54-63, 1975 2. Handler B, Dhingra RC, Rosen KM *J Clin Pharmacol* 21 706-711, Nov-Dec 1981 3. Brater DC, *et al* *Clin Pharmacol Ther* 34 207-213, Aug 1983 4. Brater DC, Fax WR, Chennavasani P *J Clin Pharmacol* 21 599-603, Nov-Dec 1981 5. Davies DL, *et al* *Clin Pharmacol Ther* 15 141-155, Feb 1974

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WARNINGS: Dose should be adjusted to patient's needs. Excessive doses or too frequent administration can lead to profound water loss, electrolyte depletion, dehydration, reduction in blood volume and circulatory collapse with the possibility of vascular thrombosis and embolism, particularly in elderly patients.

Prevention of hypokalemia requires particular attention in patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis and ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, certain diarrheal states, or other states where hypokalemia is thought to represent particular added risks to the patients. In patients with hepatic cirrhosis and ascites, sudden alterations of electrolyte balance may precipitate hepatic encephalopathy and coma. Treatment in such patients is best initiated in the hospital with small doses and careful monitoring of the patient's clinical status and electrolyte balance. Supplemental potassium and/or spironolactone may prevent hypokalemia and metabolic alkalosis in these patients.

In cats, dogs and guinea pigs, Bumex has been shown to produce ototoxicity. Since Bumex is about 40 to 60 times as potent as furosemide, it is anticipated that blood levels necessary to produce ototoxicity will rarely be achieved. The potential for ototoxicity increases with intravenous therapy, especially of high doses.

Patients allergic to sulfonamides may show hypersensitivity to Bumex.

PRECAUTIONS: Measure serum potassium periodically and add potassium supplements or potassium-sparing diuretics, if necessary. Periodic determinations of other electrolytes are advised in patients treated with high doses or for prolonged periods, particularly in those on low salt diets. Hyperuricemia may occur. Reversible elevations of the BUN and creatinine may occur, especially with dehydration and in patients with renal insufficiency. Bumex may increase urinary calcium excretion.

Possibility of effect on glucose metabolism exists. Periodic determinations of blood sugar should be done, particularly in patients with diabetes or suspected latent diabetes.

Patients should be observed regularly for possible occurrence of blood dyscrasias, liver damage or idiosyncratic reactions.

Especially in presence of impaired renal function, use of parenterally administered Bumex should be avoided in patients to whom aminoglycoside antibiotics are also being given, except in life-threatening conditions.

Drugs with nephrotoxic potential and bumetanide should not be administered simultaneously. Since lithium reduces renal clearance and adds a high risk of lithium toxicity, it should not be given with diuretics.

Probenecid should not be administered concurrently with Bumex.

Concurrent therapy with indomethacin not recommended.

Bumex may potentiate the effects of antihypertensive drugs, necessitating reduction in dosage.

Interaction studies in humans have shown no effect on digoxin blood levels.

Interaction studies in humans have shown Bumex to have no effect on warfarin metabolism or on plasma prothrombin activity.

Pregnancy: Bumex should be given to a pregnant woman only if the potential benefit justifies the potential risk to the fetus.

Bumetanide may be excreted in breast milk.

Pediatric Use: Safety and effectiveness below age 18 not established.

ADVERSE REACTIONS: Muscle cramps, dizziness, hypotension, headache and nausea, and encephalopathy (in patients with preexisting liver disease).

Less frequent clinical adverse reactions are weakness, impaired hearing, rash, pruritus, hives, electrocardiogram changes, abdominal pain, arthritic pain, musculoskeletal pain and vomiting. Other clinical adverse reactions are vertigo, chest pain, ear discomfort, fatigue, dehydration, sweating, hyperventilation, dry mouth, upset stomach, renal failure, osteitis, itching, nipple tenderness, diarrhea, premature ejaculation and difficulty maintaining an erection.

Laboratory abnormalities reported are hyperuricemia, azotemia, hyperglycemia, increased serum creatinine, hypochloremia, hypokalemia, hyponatremia, and variations in CO₂ content, bicarbonate, phosphorus and calcium. Although manifestations of the pharmacologic action of Bumex, these conditions may become more pronounced by intensive therapy.

Diuresis induced by Bumex may also rarely be accompanied by changes in LDH, total serum bilirubin, serum proteins, SGOT, SGPT, alkaline phosphatase, cholesterol, creatinine clearance, deviations in hemoglobin, prothrombin time, hematocrit, platelet counts and differential counts. Increases in urinary glucose and urinary protein have also been seen.

DOSAGE AND ADMINISTRATION:

Oral Administration: The usual total daily dosage is 0.5 to 2.0 mg and in most patients is given as a single dose.

Parenteral Administration: Administer to patients (IV or IM) with GI absorption problem or who cannot take oral. The usual initial dose is 0.5 to 1 mg given over 1 to 2 minutes. If insufficient response, a second or third dose may be given at 2 to 3 hour intervals up to a maximum of 10 mg a day.

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119th Annual Session

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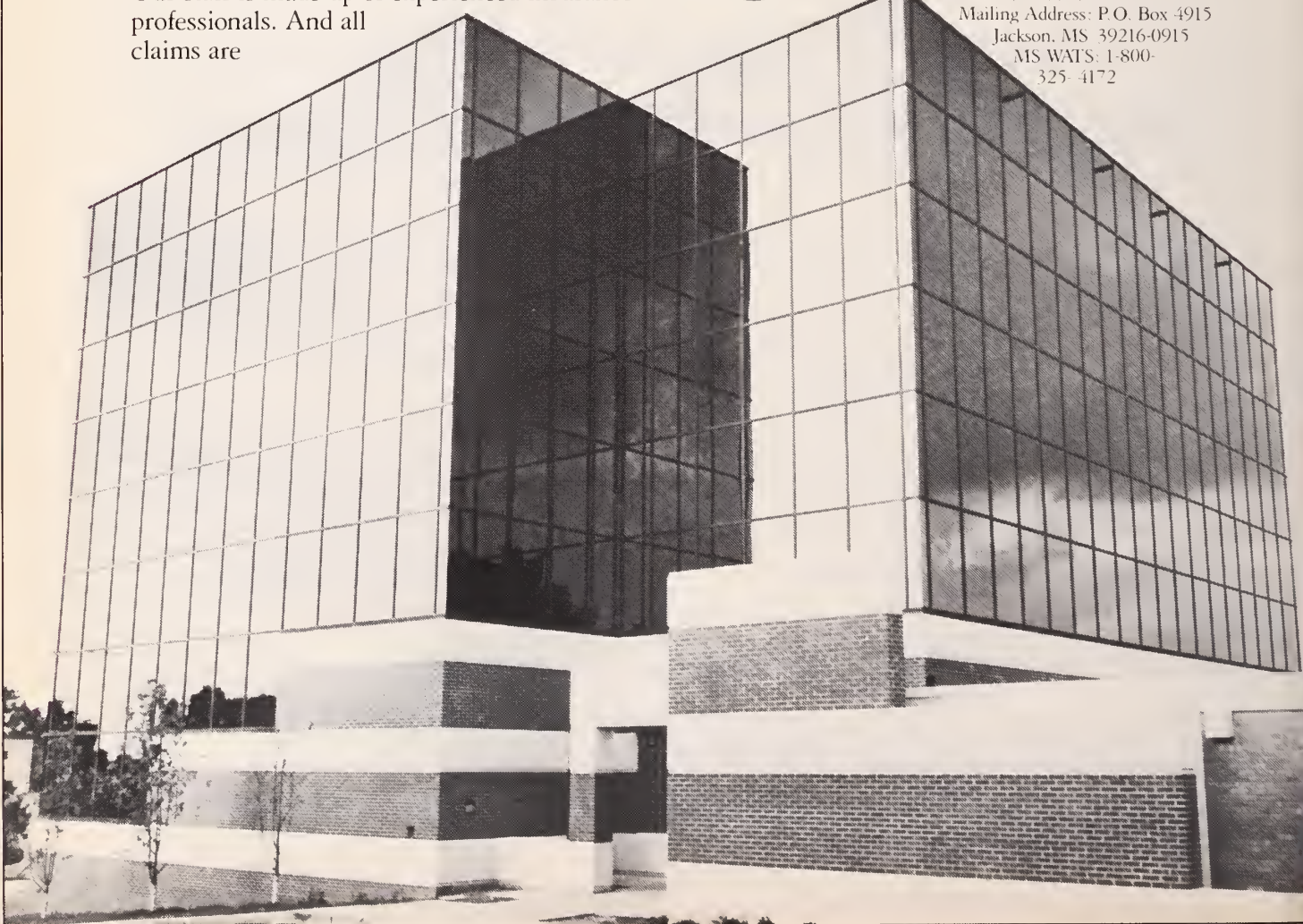
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NEWSLETTER

July 1987

Dear Doctor:

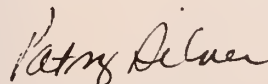
Delegates to the AMA's annual meeting last month, in adopting recommendations of the association's Board of Trustees, endorsed mandatory AIDS testing for immigrants and prison inmates. The recommendations for mandatory testing do not extend to applicants for marriage licenses, as President Reagan had suggested, or to all people entering a hospital. The AMA policy-makers also recommended that elementary school students be educated about transmission of the disease.

MSMA's House of Delegates, meeting June 3-7 in Biloxi, also adopted a policy statement on AIDS which calls for physicians to take a leading role in education and counseling. The policy statement, which will be published in an upcoming issue of the Journal, also addresses testing, confidentiality, access to care by AIDS patients, and precautions for health care professionals to use in minimizing occupational exposure to the virus.

AIDS continues to be an important issue for lawmakers, with more than 425 bills dealing with AIDS having been introduced in 47 state legislatures by early June. Most of the proposed bills focused on the issues of mandatory testing and disclosure of test results.

Many physicians with physical disabilities can and do continue active medical practices, observes a report in the June 5 JAMA. While the exact number of disabled physicians is not known, one estimate suggests that there are 18,000 (4% of physicians). The JAMA report analyzed data on 155 physicians who contacted the American Society of Handicapped Physicians between 1982 and 1984. Of the 155, 129 physicians stated they were in full-time practice, with two-thirds in five specialties: internal medicine (28); family practice (22); rehabilitation medicine (16); psychiatry (14); and pediatrics (13). Many reported that their disability had given them a heightened empathy for their patients that had actually improved the quality of their doctor-patient relationships.

Sincerely,



Patsy Silver
Managing Editor

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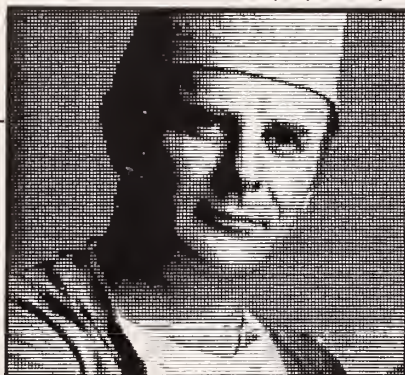
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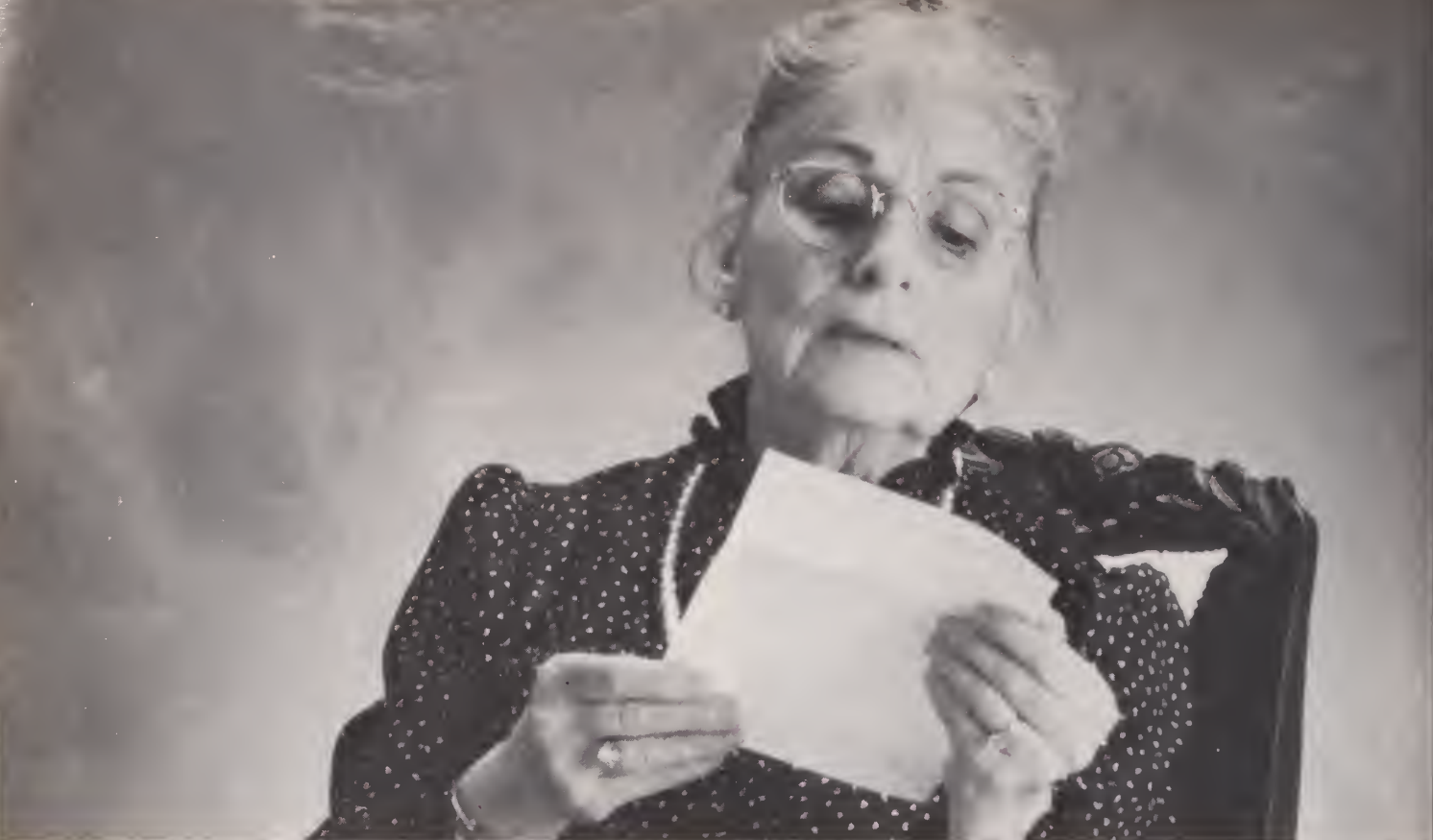
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For privacy and confidentiality, the Center is nestled in a secluded wooded setting, south of Birmingham, Alabama. Although our facility is new, our commitment to health care professionals is well established.

To receive more information in complete confidence, fill in and return the attached postage-paid reply card or call our toll-free telephone number today: 1-800-452-9860 and ask for the Center for Health Professionals.

UAB Medical Center
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DATELINE

Candidates Sought For UMC Study

Jackson, MS - Physicians are invited to discuss possible candidates for a UMC study evaluating treatment of pancreatic pseudocysts by repeated needle aspiration or catheter insertion in lieu of an internal surgical drainage procedure. Candidate patients are those in whom a surgical procedure is indicated but who agree to be randomized to one of the two percutaneous treatments. For information, call Dr. Achord (984-4540) or Dr. Scott-Conner (984-5120).

Competition May Boost Costs

Chicago, IL - Competition among hospitals may increase rather than decrease costs for patients, suggests a report in JAMA. Data from 1982 show that hospitals in the most competitive markets had 15% higher average costs per patient day than hospitals with no nearby competitors. After adjusting for wage rates, patient case mix, state regulatory programs, and hospital teaching role, average costs were 26% higher in competitive areas.

Violence Is Leading Killer of Young People

Chicago, IL - Violence has replaced infection as the leading killer of young people in the United States, with adolescents the only segment of the population whose health status has not improved in the past 30 years, says a report in the June 26 issue of JAMA. Accidents, homicide and suicide account for 77% of adolescent deaths in the United States, according to the article.

Caution Against Extra Fluoride for Kids

Atlanta, GA - Parents considering giving their children fluoride supplements and rinses should first determine how much fluoride kids are getting in drinking water, toothpaste and dental visits, warns an Emory University dentist. He reports that he sees most cases of fluorosis in children whose health-conscious parents go overboard on fluoride and cautions people in areas with fluoridated drinking water not to use supplements.

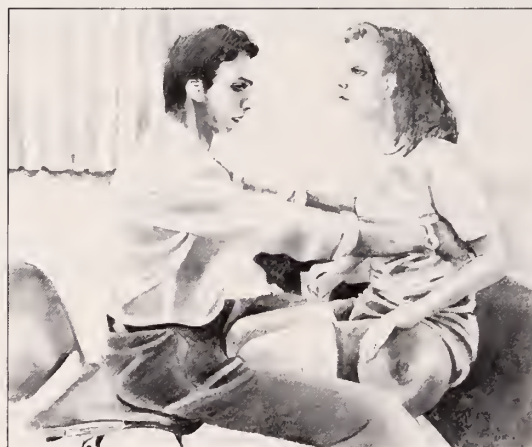
Toll-Free Number For Donor Inquiries

Jackson, MS - A toll-free number is available to the public for questions about organ donation. By calling 1-800-843-1166, persons may talk with someone who will answer questions directly, send information, or arrange for speakers at schools or club meetings. The service is provided by UMC and Mississippi Lions Eye Bank to increase awareness of organ donation and its role in heart, lung, kidney, liver, cornea and bone transplantation.

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NEW Keflet Tablets are available as:



Keflet is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-sensitive patients.

Brief Summary. Consult the package literature for prescribing information. Indications and Usage: KefletTM Tablets (cephalexin, Dista) are indicated for the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Respiratory tract infections caused by *Streptococcus pneumoniae* and group A β hemolytic streptococci (Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. Keflet is generally effective in the eradication of streptococci from the nasopharynx, however, substantial data establishing the efficacy of Keflet in the subsequent prevention of rheumatic fever are not available at present.)

Otitis media due to *S. pneumoniae*, *Haemophilus influenzae*, staphylococci, streptococci, and *Neisseria catarrhalis*

Skin and skin structure infections caused by staphylococci and/or streptococci

Bone infections caused by staphylococci and/or *Proteus mirabilis*. Genitourinary tract infections, including acute prostatitis, caused by *Escherichia coli*, *P. mirabilis*, and *Klebsiella sp.*

Contraindication: Keflet is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: BEFORE CEPHALEXIN THERAPY IS INSTITUTED, CAREFUL INQUIRY SHOULD BE MADE CONCERNING PREVIOUS HYPERSENSITIVITY REACTIONS TO CEPHALOSPORINS AND PENICILLIN. CEPHALOSPORIN C DERIVATIVES SHOULD BE GIVEN CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS.

SERIOUS ACUTE HYPERSENSITIVITY REACTIONS MAY REQUIRE EPINEPHRINE AND OTHER EMERGENCY MEASURES.

There is some clinical and laboratory evidence of partial cross-allergenicity of the penicillins and the cephalosporins. Patients have been reported to have had severe reactions (including anaphylaxis) to both drugs.

Any patient who has demonstrated some form of allergy, particularly to drugs, should receive antibiotics cautiously. No exception should be made with regard to Keflet.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Usage in Pregnancy: Safety of this product for use during pregnancy has not been established.

Precautions: *General:* Patients should be followed carefully so that any side effects or unusual manifestations of drug idiosyncrasy may be detected. If an allergic reaction to Keflet occurs, the drug should be discontinued and the patient treated with the usual agents (eg, epinephrine or other pressor amines, antihistamines, or corticosteroids).

Prolonged use of Keflet may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross matching procedures when antioglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Keflet should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

As a result of administration of Keflet, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clintest[®] tablets but not with Tes-Tape[®] (Glucose Enzymatic Test Strip, USP, Lilly).

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—The daily oral administration of cephalexin to rats in doses of 250 or 500 mg/kg prior to and during pregnancy, or to rats and mice during the period of organogenesis only, had no adverse effect on fertility, fetal viability, fetal weight, or litter size. Note that the safety of cephalexin during pregnancy in humans has not been established.

Cephalexin showed no enhanced toxicity in weanling and newborn rats as compared with adult animals. Nevertheless, because the studies in humans cannot rule out the possibility of harm, Keflet should be used during pregnancy only if clearly needed.

Nursing Mothers: The excretion of cephalexin in the milk increased up to 4 hours after a 500-mg dose; the drug reached a maximum level of 4 µg/mL, then decreased gradually, and had disappeared 8 hours after administration. Caution should be exercised when Keflet is administered to a nursing woman.

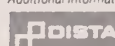
Adverse Reactions: Gastrointestinal: Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely. The most frequent side effect has been diarrhea. It was very rarely severe enough to warrant cessation of therapy. Dyspepsia and abdominal pain have also occurred. As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.

Hypersensitivity: Allergic reactions in the form of rash, urticaria, angioedema, and, rarely, erythema multiforme, Stevens-Johnson Syndrome, or toxic epidermal necrolysis have been observed. These reactions usually subside upon discontinuation of the drug. Anaphylaxis has also been reported.

Other reactions have included genital and anal pruritus, genital moniliasis, vaginitis and vaginal discharge, dizziness, fatigue, and headache. Eosinophilia, neutropenia, thrombocytopenia and slight elevations in SGOT and SGPT have been reported.

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ORIGINAL PAPERS

Primary Malignant Tumors of the Small Bowel

BENTON M. HILBUN, M.D.

WILLIAM BLOCK, M.D.

Tupelo, Mississippi

A RECENT EXPERIENCE with a case of adenocarcinoma of the small intestine has prompted a review of the literature and a review of our own experience over the past decade.

Malignant small bowel tumors are in themselves relatively rare when compared to those of the remainder of the gastrointestinal tract. A large series reported from the Massachusetts General Hospital, reviewed all cases over a 64-year period and found only 171 cases. This comprised only 2% of tumors of the gastrointestinal tract.

We have reviewed our experience at the North Mississippi Medical Center over the past ten years in order to identify types of tumors, treatment provided, and evaluate aspects of management that might be improved.

Case Report

B. S. is a 58-year-old white male who was first evaluated one year prior to the current admission. At that time his problems were anemia, persistent occult blood in the stool, and abdominal distention. Gastroscopy was performed at that time and a diagnosis of superficial gastric ulceration was made. He was treated with cimetidine and over the following months he continued to experience weight loss, weakness, and anemia. He was readmitted to

The authors present a case report and discuss their experience with primary malignant tumors of the small bowel over a ten-year period. They discuss probable causative factors, proper diagnostic approach, and appropriate therapy. They conclude that analysis of the data suggests that early diagnosis and wide surgical excision offer the only hope for improving the dismal prognosis associated with these relatively rare malignant tumors arising from the small bowel.

the hospital, and an upper small bowel series was done which revealed near total obstruction of the proximal jejunum and an intra-luminal tumor. Exploration revealed a large adenocarcinoma and resection was performed. The tumor was located approximately ten centimeters below the ligament of Trietz and although there were enlarged nodes in the mesentery, all were negative for metastasis. A CEA level was reported as zero. No additional treatment is planned for the present. The patient has returned to normal activity.

From the departments of pathology and surgery, North Mississippi Medical Center, Tupelo, MS.

Analysis of Cases

Of the ten cases of primary malignant neoplasms of the small intestine, there were four adenocarcinomas only one of which had not clearly metastasized, three leiomyosarcomas, and three carcinoids (see Table I). There were a preponderance of white males with 80% of tumors occurring in that group. There was also a slight affinity for the male. The age distribution was 50 years to 90 years of age with the average age of 69. The most consistent symptom was cramping abdominal pain associated with partial obstruction. The most consistent sign was the presence of anemia. The tumors occurred in the jejunum in one-half of the cases and in the ileum in one-half. Metastatic tumor was present in 60% of the cases at the time of diagnosis.

Prognosis in this group of patients is poor. There was an average survival of 14 months for the six cases that have expired. The four cases that are still living have an average follow-up of two years with no evidence of disease.

Discussion

Primary malignant tumors of the small intestine comprise only 2% of gastrointestinal malignancies. This is surprising since there is 90% more surface area in the small bowel. The relative lack of susceptibility of the small bowel to neoplasm remains unexplained. There are several hypotheses that should be mentioned:

- (1) The rapid transit time of the small intestine may reduce exposure to ingested carcinogens.
- (2) The fluidity of the contents may be less irritating to the mucosa.
- (3) The relative absence of bacteria may lessen the formation of carcinogens.
- (4) There is a higher concentration of a mucosal enzyme (benzpyrene hydroxylase) which may detoxify carcinogens.
- (5) There is a high concentration of immunoglobulin A which may act as an anti-viral agent.

The prognosis of small bowel malignancies is dismal, and in large part, is due to the extent of the disease before diagnosis and treatment is established. In several series, the five-year survival is reported as 30%. In the cases where treatment was initiated prior to metastasis, the five-year survival is reported to approach 68%.

It appears from studies available, that 5-Fluorouracil treatment in patients with metastatic disease may have some beneficial effect but survival beyond two years is rare. This also applies to the carcinoid tumors and adenocarcinoma.

Detection of neoplasm of the small bowel is difficult in the early stages. Most cases are diagnosed an average of seven months after symptoms first appear. Many cases have had multiple work-ups prior to the final diagnosis. Intermittent obstruction with abdominal pain is the most prevalent symptom and is almost always associated with the presence

TABLE I
ANALYSIS OF CASES

Name	Age	Sex	Pathology	Treatment	Race	Symptoms	Follow-up	Location
Miller, W. A.	81	M	Leiomyosarcoma, with peritoneal implant	S. bowel resection	White	Cramping, abd. pain	Exp. 16 mo. p. o.	Jejunal
Baldwyn, M. A.	60	F	Adeno ca, jejunum with liver mets.	S. bowel resection	White	Anemia, weight loss, abd. pain	Exp. 6 mo.	Jejunal
Reese, Lee A.	73	M	Leiomyosarcoma	S. bowel resection	White	Incidental finding at exp. lap.	Exp. 30 mo.	Ileum
Foster, Robert	90	M	Carcinoid	S. bowel resection	Black	N/V, anemia, partial obstruction	Exp. 5 yrs. NED	Ileum
Michael, J. W.	50	M	Leiomyosarcoma	S. bowel resection	White	Abd. mass, fever, weight loss	Exp. 18 mo.	Ileum
Sims, Bill P.	59	M	Adeno ca	S. bowel resection	White	Anemia, partial small bowel obstruction	NED	Jejunal
McCullough, May	79	F	Adeno ca, peritoneal mets.	S. bowel resection	White	Melena, anemia	Yearly FFU for CEA, 18 mo. p. o.	Ileum
Guess, Hoyle	58	M	Carcinoid	S. bowel resection, liver biopsy	White	Abd. pain, N/V	Stable disease, 11 mo. p. o.	Jejunal
Knowles, Eva	68	F	Carcinoid, negative nodes	Resection, distal ileum	Black	Cramping, abd. pain, weight loss	NED, 8 mo. p. o.	Ileum
Sanders, Clara	78	F	Adeno ca, negative nodes	S. bowel resection	White	GI bleeding, negative work-up	NED, 4 yrs. p. o.	Jejunal

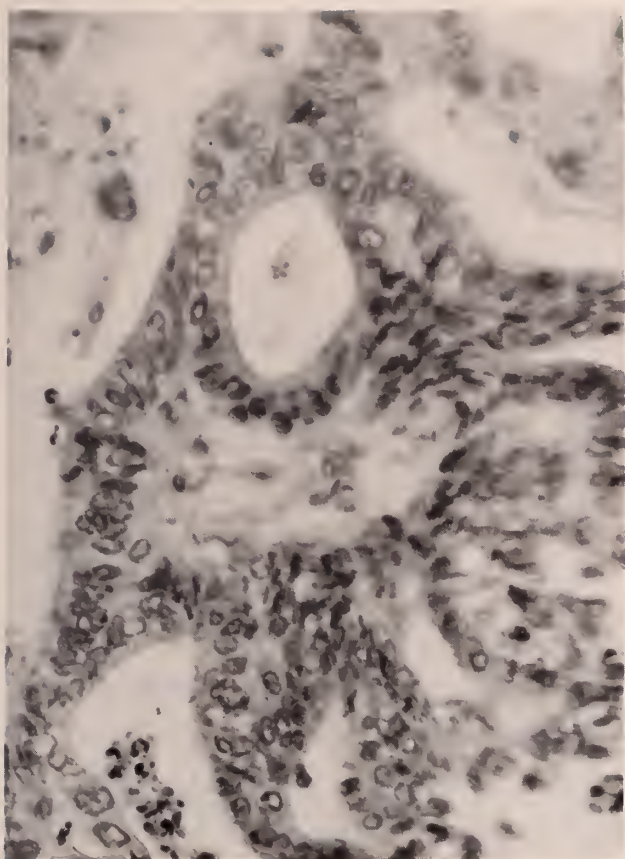


Figure 1. The 23 cm segment of jejunum contained a constricting napkin ring lesion, grossly identical to those seen in colon carcinomas. Microscopically, mucosa was undermined by a moderately differentiated adenocarcinoma, which clearly maintained the general features of jejunum. Solid, tubular and gland structures penetrated the muscularis and extended into serosal adipose tissue, forming small, tightly knit cribriform glands. Though no tumor was identified in any of 16 lymph nodes, lymphatics were dilated at the distal resection margin.

of anemia. In some cases gastroscopy may be misleading in that incidental findings such as superficial gastric erosion is interpreted as the source of the problem and may delay obtaining barium studies. Selective arteriography may be useful in some tumors; sarcomas are more likely to produce the characteristic blush.

Summary

Over a ten-year period, ten patients with primary malignant tumors of the small bowel were treated. There was an equal distribution between sarcoma, carcinoid and adenocarcinoma. Lymphoma was excluded. The most common symptom and finding was cramping abdominal pain and anemia. The best diagnostic tool was barium studies of the small bowel. Metastasis had already occurred in a majority of the cases. The average survival of patients with metastasis is 14 months.

Treatment consisted of wide resection. Our efforts should be to identify the cases before metastasis has occurred. In all patients with anemia and occult blood in the stool, a small bowel barium study should be done in conjunction with endoscopic procedures.

★★★

607 Garfield Street (38801)

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Current Concepts: Care and Habilitation of the Child with Myelomeningocele — A Multidisciplinary Approach

II. Neurosurgical Treatment

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THE MOST IMPORTANT and most common of the dysraphic disorders recognized in the neonatal period is the myelomeningocele. It is caused by the embryologic failure of neurulation that occurs between the third and fifth weeks of gestation. The lesion contains by definition both meningeal and neural tissue. It is characterized by a meningeal lined sac containing neural elements or the exposed neural plaque. The vertebral defect is usually easily recognized and a failure of skin closure is almost a constant finding. The exposed neural plaque consists of poorly organized glial tissue and is often further traumatized by vaginal delivery or exposure to amniotic or blood products. Associated with myelomeningocele is the frequent occurrence of congenital intracranial anomalies including hydrocephalus, hydromyelia, polymicrogyria, agenesis of the corpus callosum, beaking deformity of the quadrigeminal plate, basilar impression, and the Arnold-Chiari malformation of the hindbrain.

Clinical Presentation and Evaluation

The initial neurosurgical evaluation of the infant with myelomeningocele involves the determination of the exact nature of the spinal defect, the degree of neurologic deficit, and the presence of associated congenital anomalies (see Figure 1). It is important

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Myelomeningocele probably more than any other disability requires aggressive, well-coordinated multidisciplinary management. In recognition of the fact that physicians and community programs throughout the state provide the on-going medical care, support and service to children with this disability and their families, members of the medical staff of Mississippi Children's Rehabilitation Center who also participate in the Myelomeningocele Clinic at Blake Clinic for Children (Children's Medical Program) have submitted this series of specialty articles to update the primary care physician.

to realize the level, anatomic features, and size of the defect. A closed transparent sac without CSF leakage probably has a better prognosis than one with a draining sac or exposed neural plaque. The extent of the bony defect is palpable and is often associated with a gibbus or kyphoscoliosis of the spine.

The neurologic findings are determined by the location and extent of the lesion. In general, there is paraplegia and sensory loss at the level of and distal to the lesion. Flaccid paralysis is typical, especially in the muscles supplied by the spinal seg-

ments at the cord level of the lesion. Distal to the lesion, especially with a thoracic lesion, there may be an island of intact cord which can result in spasticity and preservation of spinal reflexes. Careful pinprick stimulation above the level of the lesion is required to determine the exact sensory level as well as movement in the lower extremities. Otherwise, spinal reflexes in response to stimulation below the lesion can be mistaken for purposeful motor activity. A wide variety of associated musculoskeletal deformities including pes cavus, hip dislocation, and kyphoscoliosis can be present as a consequence of denervation and muscle imbalances of the affected motor segments. Bladder paralysis is usually present and is recognized by the constant dribbling of urine. Anal and rectal reflexes may be absent and prolapse can also be present.

The presence of hydrocephalus at birth in a child with myelomeningocele is easily recognized by the large head, wide open and bulging fontanelle, and prominent scalp veins. Even in newborns with normal head size, it is very important to measure the head circumference at birth, because at least 80-90% of the thoracic or lumbar myelomeningoceles may develop hydrocephalus in the ensuing weeks after the repair of the myelomeningocele.

The radiologic evaluation of these babies includes plain skull x-rays, spine x-rays, and ultrasound or CT of the head. Usually these studies can be performed within the first few hours of life providing a comprehensive view of neural anomalies. It should be stressed that there are very few reliable criteria for determining the intellectual potential at birth.^{1, 2} Abnormalities recognized on CT scan such as polymicrogyria, heterotopia of gray matter, agenesis of the corpus callosum, cerebral mantle thickness and fused thalami appear to be unrelated to intellectual potential.

Neurosurgical Management

Meningomyelocele. The primary aim of myelomeningocele repair in the newborn period is the prevention of further loss of neurologic function. As such, a watertight closure is mandatory to prevent CSF infection and the restoration of the anatomic integrity of the neural elements is necessary. In most cases the neural tube defect should be closed within the first 48 hours of life to minimize the possibility of CSF contamination.³ Vitamin K must be given to these children prior to surgery to ensure that the blood clots appropriately. Endotracheal anesthesia is necessary and a good intravenous line is mandatory. The child is placed in the prone position. Heat loss must be constantly guarded against,



Figure 1

utilizing warming lamps or a heating mattress as well as plastic drapes. Meticulous attention to hemostasis performed throughout the surgery is necessary as the child's blood volume is rather limited.

An elliptical incision is made at the junction of the epidermis and the meninges allowing entry into the meningeal sac and drainage of CSF. Gentle handling of the neural tissue is performed freeing the neural placode from the underlying meninges. The dura is then freed from the underlying fascia of the lumbar spine. Bipolar cautery is utilized to minimize trauma to the neural elements. The neural tube is then reconstructed and the dura is closed in a watertight fashion.^{4, 5} If the dura is deficient, a fascia lata graft provides appropriate coverage of the neural elements. In some cases a shallow canal may make the closure more difficult and may require bone removal. Children with a marked degree of kyphoscoliosis may need to have a vertebral body resection and fusion at the time of the initial closure. It is not at all unusual to have inadequate skin to cover the defect. Skin flaps may need to be developed, preferably with releasing incisions laterally

such that a full thickness approximation of skin occurs at the midline and split thickness skin grafts are placed laterally. The child is carefully followed in the neonatal intensive care unit for the possible development of infection, wound dehiscence, or new neurologic deficits. The child is kept in the prone position postoperatively, without a diaper and with the incisions dressed with an antibiotic ointment.

Hydrocephalus. In children who are born with hydrocephalus, shunting has recently been advocated at the time of closure of the myelomeningocele.⁵ The potential for increased wound breakdown, infections, or increased anesthetic morbidity has failed to be realized by these simultaneous procedures. The infant should be assessed for hydrocephalus in the immediate postoperative period if this was not performed preoperatively. Most infants will not have macrocephaly; however, the majority will have enlarged ventricles revealed by CT scan or sonography. The incidence of hydrocephalus increases with higher myelomeningoceles. Sacral lesions are associated with hydrocephalus in 50% of cases while hydrocephalus occurs in over 90% of infants with thoracic myelomeningoceles.⁶ Macrocephaly as determined by head circumference measurement tends to occur in patients with larger and higher myelodysplasia. The higher lesion also tends to have more severe degrees of hydrocephalus.⁷ An enlarging head that is documented should be evaluated with sonography through open fontanelles or with computerized tomography. Sonography allows a safe, non-invasive evaluation of ventricular size which can be repeated as needed. About 80% of infants with myelomeningocele will develop hydrocephalus and require a shunt procedure.⁸

Insertion of a ventriculoperitoneal shunt is a relatively simple procedure and is preferred management to other shunting methods or medical management. Meticulous technique is required to keep the incidence of infection at a minimum. The reported incidence of shunt infection is 10.3-14.5% in myelodysplastic patients.^{7, 8} Infections usually occur in the first month or two following shunt insertion. Shunt infections are often indolent with *Staphylococcus epidermis* and gram negative rods being the most common cultured organisms. Shunt malfunction may manifest itself by sixth cranial nerve palsy, lethargy, irritability, vomiting, and redness or swelling of the shunt (see Table 1). In infants with open cranial sutures, the only clue to shunt malfunction may be an enlarging head circumference. In McLone's series⁸ with follow-up of 3.5 to 7 years, 48% of patients with shunts did not require

TABLE 1
CLINICAL MANIFESTATIONS OF SHUNT MALFUNCTION

Lethargy, irritability
Vomiting
Sixth cranial nerve palsies
Redness or swelling over the shunt
Enlarging head circumference
Chiari II syndrome
Swallowing difficulties
Stridor
Bronchial aspiration
Apnea
Opisthotonus

a revision, 16% required one shunt revision, and 16% required two revisions. O'Brien and McLanahan⁷ reported having a 0.44 incidence of shunt revisions per year and in 62% of their shunted patients the ventricles became normal or only slightly dilated.

Chiari Malformation. The Chiari II malformation is a syndrome of hindbrain dysplasia with kinking and often compression of the brain stem. The infant presents with swallowing difficulty, apnea, stridor, bronchial aspiration, arm weakness, and opisthotonos. The parents of children with repaired myelomeningoceles when questioned closely often report frequent episodes of spitting up, choking during feedings, and periods of abnormal breathing. However, about 5% of patients develop significant difficulties necessitating medical treatment. Of these, about one-third will die and two-thirds will improve with time.⁸ The syndrome may occur following a shunt malfunction, and a properly working shunt is the initial treatment in most infants. Park et al⁹ treated 45 such infants with posterior fossa and upper cervical decompression and 24 made a complete recovery. However, many patients recover spontaneously or following a shunting procedure, and the value of a decompressive procedure is debatable.

Longterm Neurosurgical Management

The management of a child with a myelomeningocele does not end, however, with the closure of the myelomeningocele and with the initial shunt procedure, but rather begins with this process. These children require constant attention throughout their childhood to carefully evaluate the degree of neurologic function preserved in the lower extremities, the possibility of brain stem compromise, and the appropriateness of shunt function. The follow-up evaluation includes assessment of feeding difficulties, breathing patterns, irritability, and the family's

TABLE 2
CLINICAL CHANGES ASSOCIATED WITH
SPINAL CORD TETHERING

Signs and symptoms often occur during growth spurts
Changes in bowel, bladder, or sexual function
Gait abnormalities
Lower extremity hyporeflexia or hyperreflexia
Leg weakness or atrophy
New sensory deficits

acceptance of the infant. Periodic neurologic examinations and measurement of head circumference are mandatory. Especially important are loss of previously acquired neurologic function and failure to progress to normal milestones. Careful evaluation of the infant allows timely recognition of possible complications including hydrocephalus, shunt infections, Chiari II syndrome, and progressive spinal cord lesions.

Tethered Cord Syndrome. Delayed deterioration of spinal cord function is relatively common and loss of function may occur months to years following myelomeningocele closure. This is attributed to spinal cord tethering from previous myelomeningocele closure or associated anomalies such as diastematomyelia.¹⁰ Another cause of progressive loss of spinal cord function is syringohydromyelia, in which a fluid-filled cavity inside the spinal cord compresses the surrounding cord tissue. The abnormalities begin with subtle, but progressive deficits which often occur during growth spurts (see Table 2). Determination of any change in bowel, bladder, and sexual function (if of appropriate age), changes in gait, or leg atrophy should be made with each follow-up evaluation. During the neurologic examination, careful note should be made of any

new hyporeflexia or hyperreflexia, decrease in motor strength, presence of atrophy, discrepancy in leg lengths, and new sensory deficits. Evaluation of the patient may include spinal radiographs, myelography and/or contrast spinal CT scan, and more recently magnetic resonance imaging. Treatment of the tethered spinal cord usually entails laminectomy with release of the abnormality causing the tethered cord. Syringohydromyelia may require a shunting procedure from the syrinx to the spinal subarachnoid space or peritoneal cavity. ★★★

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Indium-111 Labeled Leukocyte Scanning

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SINCE THE DISCOVERY of a practical method of labeling white blood cells with Indium-111 in 1977, the Indium-111 labeled leukocyte scan has been shown to have many uses in the detection and evaluation of inflammatory processes. Although its greatest use has probably been in the detection of intra-abdominal abscesses, other intra-abdominal and extra-abdominal infections have been evaluated by this method. Studies evaluating the performance of the Indium-111 labeled leukocyte study in comparison with computerized tomography and ultrasound have demonstrated similar levels of effectiveness with each modality.^{1,2} Although each type of study has its own benefits, the Indium-111 labeled leukocyte scan's ability to image the entire body is a major advantage in some clinical situations. Disadvantages of the Indium-111 leukocyte study include decreased sensitivity in the evaluation of chronic infections, a relatively large dose of radiation to the spleen, and the necessity of drawing a fairly large blood sample.

In order to obtain a sufficiently large population of leukocytes, approximately 50cc of blood must be withdrawn from the patient. Because labeling with Indium-111 is not specific for leukocytes, these cells must first be separated from the erythrocytes and platelets by sedimentation. The white cells are then incubated with Indium-111, and 500 millicuries of labeled leukocyte activity is injected into the patient. The target organ for radiation exposure is the spleen, which receives approximately 8.5 rads.

The authors observe that the Indium-111 labeled leukocyte scan may be a valuable tool in evaluation of infection. They note that its effectiveness is comparable to that of computerized tomography and ultrasound, and that both cost and radiation exposure are acceptable.

The bone marrow receives approximately 2 rads and the liver 1 to 2 rads, with the total body dose being approximately .25 rads.

Imaging is usually performed 24 hours after injection, although early imaging from ½ to 4 hours has been performed in certain circumstances. Distribution of activity varies with time, with immediate activity seen in the lung, vasculature, liver, and spleen. Lung activity decreases quickly, blood pool activity decreases more slowly, and activity in the liver and spleen increases with time. By 24 hours after injection, activity is normally seen only in the spleen, liver, and bone marrow in order of decreasing intensity (see Figure 1). Accumulation of activity in areas other than these should be considered abnormal. Areas of focal increased activity are more likely to represent abscess formation as compared to areas of modest or diffusely increased activity. Kipper³ et al described a system of evaluation in which the intensity of abnormal uptake is compared to areas of normal uptake. Activity which was abnormal in location and greater than or equal to activity in the spleen was felt likely to represent abscess formation. Abnormally located activity which was approximately equal to that of the liver was

Sponsored by the Mississippi Radiological Society.
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considered to represent relatively intense inflammation, while abnormally located activity approximately equal to that of bone marrow was considered consistent with low level inflammation.

The greatest use of the Indium-111 labeled leukocyte scan has been in the evaluation of suspected intra-abdominal abscess. Clinical diagnosis of this entity may be difficult due to poorly localizing signs and attribution of symptoms to other pathologies. This disease has a high mortality if left untreated. A study by Knochel¹ et al compared computerized tomography, ultrasound, and the Indium-111 labeled leukocyte study in the evaluation of intra-abdominal abscess. This study showed an overall accuracy of 96% for computerized tomography, 90% for ultrasound, and 92% for the Indium-111 labeled leukocyte study. Carroll² et al compared ultrasound with the Indium-111 labeled leukocyte scan, and demonstrated a sensitivity of 81% and 84% respectively with a specificity of 95% each. The combined sensitivity in this study was 97%, with a combined specificity of 100%. Ultrasound was felt to have the advantages of speed and decreased expense, as well as the advantage of imaging in sagittal and

transverse planes, which may allow more precise localization of abscesses. However, ultrasound evaluation is operator dependent, and its ability to obtain images is limited at sites of drains, tubes, wounds, and gas or bone interference. The appearance of abnormalities seen on ultrasound may not be specific, with hematomas, lymphoceles, seromas, fluid filled bowel loops, and cysts sometimes simulating abscess. Computed tomography has the advantage of excellent anatomical localization. However, false positive diagnoses of abscess formation may be seen in tumor necrosis, thick-walled cysts, and unopacified bowel loops. One major advantage of the Indium-111 labeled leukocyte study is the ability to image the entire body with a single examination.

Although the Indium-111 labeled leukocyte scan study is sensitive for the detection of intra-abdominal abscess, increased activity within the abdomen may reflect pathology other than intra-abdominal abscess, as well as false positive activity. Datz and Thorn⁴ reviewed 312 Indium-111 labeled leukocyte scans obtained on 271 patients with fever of unknown origin. They found that 19% of these scans showed bowel activity. Of these, 46% were demonstrated to be true positive scans. Causes of true positive activity in this series include abscesses which communicated with bowel, pseudomembranous colitis, inflammatory bowel disease, GI tract infection, necrotic bowel due to vasculitis, and typhlitis (see Figure 2). False positive scans occurred in 54%. Sources of this activity included activity from GI bleeding or activity swallowed as a result of upper gastrointestinal or upper respiratory infection.

Carrier⁶ et al reviewed 54 Indium-111 labeled leukocyte scans with abnormal accumulation of activity within the abdomen. Twenty-eight of these showed fixed activity of high intensity, consistent with abscess formation. Foci of moderate activity fixed in location were due to recent wound or stoma placement. Bowel shaped activity seen on early (four hour) images and seen at the same location on twenty-four hour images was secondary to inflammatory bowel disease. Bowel shaped activity not seen at 4 hours but seen to move at 24 hours and at 48 hours was consistent with swallowed activity. Therefore, evaluation of site, intensity, and pattern of activity is important in interpretation of the significance of abnormal radiotracer uptake activity.

Although the Indium-111 labeled leukocyte scan has seen greatest use for evaluation of intra-abdominal abscess, other inflammatory conditions may be imaged. Success in evaluation of suspected bone or joint infections has been mixed. In general the In-

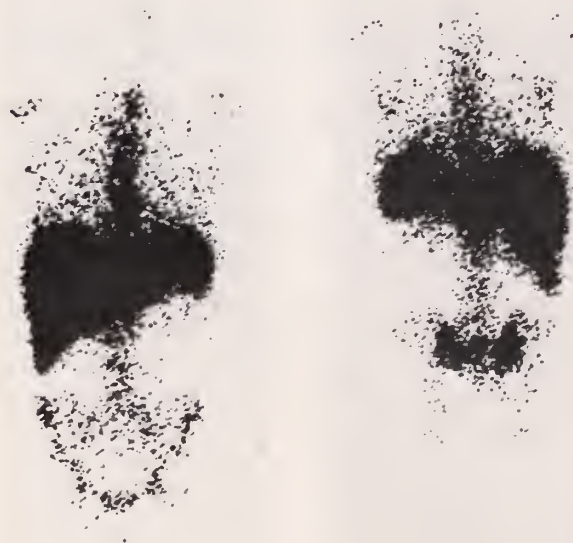


Figure 1. Normal In-111 labeled leukocyte scan.

dium-111 labeled leukocyte study is better suited for evaluation of acute rather than for chronic infections. McDougall⁶ et al in a review of 64 Indium scans obtained for the evaluation of suspected abscess, showed four out of four cases of acute osteomyelitis or septic arthritis, while two out of two cases of chronic osteomyelitis were missed. Al-Sheikh⁷ et al in a study comparing the utility of Indium-111 leukocyte scanning, Gallium-67 scanning, and ^{99m}Tc scintigraphy in evaluation of subacute and chronic bone infections felt that Indium-111 showed no advantage over Gallium-67. Schauwecker⁸ et al however, did find use for Indium-111 in the evaluation of complicating osteomyelitis in conjunction with Gallium-67 and ^{99m}Technetium scanning. They studied patients with suspected osteomyelitis superimposed on fracture, surgery, or prosthetic device placement. The Indium-111 labeled leukocyte scan had a sensitivity of 100% for acute osteomyelitis, and a sensitivity of 60% for chronic osteomyelitis. The specificity was 96%. False positive scans have been reported in bony metastatic sites, arthritis, and healing trauma sites.⁷

Indium-111 labeled leukocyte scan has also been used in evaluation of suspected renal inflammatory disease. Clinical diagnosis of renal inflammatory disease may be difficult at times. Urinalysis and urine culture may be negative, and the intravenous pyelogram may be normal or nonspecific. Although evaluation by Gallium-67 scanning has been used, Gallium-67 is normally excreted by the kidneys during the first 24 hours, necessitating delayed imaging. In addition, Gallium uptake is nonspecific, being seen in both inflammation as well as tumor. Indium-111 labeled leukocyte scan activity is not normally seen in the kidney, and it is more specific for inflammation. McDougall⁶ et al reported 16 patients with solid renal tumors showing no uptake on the Indium-111 labeled leukocyte scan. Fawcett⁹ et al reported six cases of renal inflammatory disease demonstrated by Indium scanning. Causes of increased activity included renal abscess, acute pyelonephritis, acute focal bacterial nephritis, and a case of transitional cell carcinoma which was associated with chronic and acute inflammatory changes.

Currently, the utility of the Indium-111 labeled leukocyte scan in the evaluation of lung infection is uncertain. In a recent retrospective review of 162 scans, Segal and McDougall¹⁰ evaluated the Indium-111 leukocyte scan for sensitivity and specificity for pulmonary and pleural infection. They found that as they increased the level of activity they required

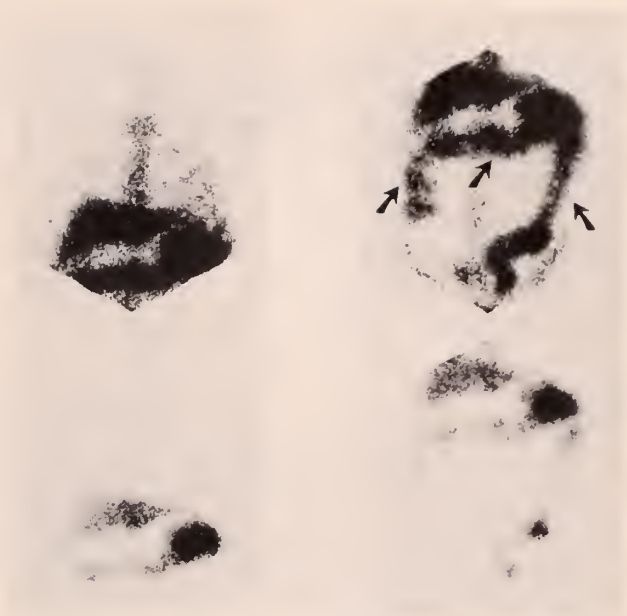


Figure 2. Seventy y/o white male with pseudo-membranous colitis with diffuse colonic activity.

to interpret a scan as abnormal, the sensitivity decreased from 93% to 14% and specificity increased from 64% to 100%. Therefore, the Indium-111 leukocyte scan may be very sensitive or very specific for infection of the lungs and pleura, depending upon what level of activity is interpreted as positive.

Where then does the Indium-111 labeled leukocyte scan find its place in patient evaluation? In a patient with suspected acute occult abscess or sepsis of undetermined etiology who is without localizing signs, the Indium-111 labeled leukocyte study may be the test of choice. If this examination is negative and clinical suspicion of infection is relatively low, the workup may end at this point. If the Indium-111 labeled leukocyte study is positive, either appropriate therapy may be initiated or confirmation with CT or ultrasound obtained. In an acutely ill patient with focal signs, CT or ultrasound should be the study of first choice. If this examination is positive, the Indium-111 labeled leukocyte study may still be useful in confirmation and in determination of other sites of infection. If the initial CT or ultrasound evaluation is negative but suspicion for infection remains high, the Indium-111 labeled leukocyte scan may then be used for further evaluation as well. If a patient presents with a history consistent with chronic infection (greater than two weeks), a Gallium-67 scan may be of more use than the Indium-111 leukocyte scan.

Summary

The Indium-111 labeled leukocyte scan has the ability to image the entire body, with an overall accuracy similar to CT and ultrasound. The labeling process is not prohibitively complicated, and images may usually be obtained within 24 hours. The cost of the study is comparable to that of a Gallium-67 scan, and the radiation dose with the Indium scan is within acceptable limits. ★★★

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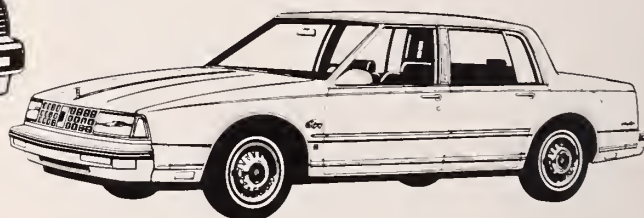
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The President Speaking

Responsible Ownership: Our Obligation

W. LAMAR WEEMS, M.D.
Jackson, Mississippi

The proposed budget for MSMA and MSMA Services, Inc. for 1987-88 is \$4 million. Ten years ago the budget for MSMA was \$325,000.00 and there was no MSMA Services, Inc. Mississippi Foundation for Medical Care operates now on a biennial budget of approximately \$3.7 million, compared to \$1.2 million in 1977. Medical Assurance Company of Mississippi was first chartered in 1976 and today has an annual premium income of \$15 million. Mississippi Physicians Health Plan will soon join the ranks of these major business enterprises which are owned by physicians in Mississippi.

In a recent editorial, an associate editor of JOURNAL MSMA bemoaned "our profession's involvement in business ventures." With due respect to our venerable editor, the question of physician ownership of various component parts of the health care system deserves more than a flippant comment.

Physicians have always, in the main, been the owners of their own practice and have prized the independence thus afforded. The alternative to ownership has always been to work for someone else. Ownership of hospitals was once key to physician influence. As one prominent physician said in the early 1900s, ". . . If we wish to avoid the fate of the tool-less wage worker, we must control the hospital." Hospital ownership subsequently became less desirable to physicians as hospitals became predominantly community based and not for profit with open medical staffs. Health insurance companies, in the good old days, were careful not to intrude into professional prerogatives, obsequiously collecting premiums from insureds and paying providers upon demand. The ownership of a medical license and of one's own practice was quite enough, in simpler times, for physicians to maintain dominance because of the acquiescence of hospitals, insurance companies, businessmen, politicians, and the public at large. Times have changed.

The drive toward cost containment has aroused a horde of entrepreneurs who are searching every nook and cranny of the system for opportunities to make a buck. The common thread is ownership because ownership is a prerequisite to profit. With ownership comes control. Control is increasingly being exercised by insurance companies and by other corporate entities, aided and abetted by government and facilitated by the excess of phy-

(Continued on page 184)

Debate and Resolution of Issues Reflects Healthy Association

The recent Annual Session of the MSMA was distinctly different from many I have attended over the past 20 years. In contrast to the somewhat limited attendance and debate at reference committees over that period, this meeting attracted much attention. The issues presented evoked spirited debates, requiring extension of the Reference Committee into an overtime session. Debate was then continued in the hallways, dining room and at the pool side. This thorough dissection of the issues and the subsequent action by the House of Delegates reflects a healthy Association.

It is easy to say that such a debate should have occurred two years ago and all of these matters resolved at that time. As one reflects back to the meeting two years ago, it is obvious this type of debate could not have taken place because the membership did not have a thorough knowledge of the subject. Since that time a tremendous pool of facts has been accumulated. It, therefore, was very appropriate that a call be made to thoroughly discuss these issues and ask the membership to reaffirm support for the HMO-IPA, or express the desire to withdraw all support from the project.

Debate such as this conducted in a fair and open forum reflects the healthy status of our Association.

MYRON W. LOCKEY, M.D.
Editor

¿Donde Esta un Medico Que Hablo Espanol? — (Where's there a doctor who speaks Spanish?)

I was recently reading an article that said that Europeans are amused at Americans because we are so self-centered and lazy that we can only speak one language — English, whereas most of them speak at least two or more languages. The article went on to say that one-fourth of the population of the United States would be Spanish-speaking in the

next 20 years. What does that mean to you and me? Instead of a few patients speaking Spanish in our practices, there may be many more. This was somewhat disconcerting to me in view of the five years of German I had in school. However, with the increasing significance of our inter-relationships with Central America, perhaps we do need to know more Spanish.

At any rate it seems reasonable to me that a working knowledge of Spanish would be both interesting and useful. I have, therefore set about to learn some. So far, I can do the usual; ie, count to ten and say "Si" and "Adios" — and actually do a bit more. My Spanish is, in fact, becoming satisfactory — very much like my violin playing — to *MY* satisfaction. I do hope it fares better than my German did.

I remember a few years ago in a nightclub in Cologne when I went up to the bar and in my very best German said "Ich mochte einander bier, Bitte" and she said, "Jeeze Christ, man, the men's room is right over there." I was asking for another beer and she was from New York City. Ah, well, so goes life. I sure do hope that I don't get my English, German, and Spanish all mixed up. I'd hate to speak in an unknown tongue.

Now let's see, where was I. . . *Respire Hondo* — Breathe deeply.

JOE JOHNSTON, M.D.
Associate Editor

Medico-Legal Brief

U.S. Liable For Injury From Swine Flu Vaccine

The government was liable for \$33,482.95 for injuries suffered by a patient from a swine flu vaccination, a federal appellate court for Iowa ruled.

On November 11, 1976, the patient received a swine flue vaccination at her physician's office. She did so because he advised her that because of her past history of tuberculosis, she was in a high risk group in being exposed to swine flu. Shortly there-

MEDICO-LEGAL BRIEF

(Continued)

after, she began complaining of intense muscle pain throughout her entire body, a condition termed "myalgia." She was hospitalized for two weeks during which time her physician thought her myalgia was probably secondary to the swine flu vaccination.

She continued to suffer muscle pain and began experiencing emotional stress characterized by tenseness. She sought the aid of a psychiatrist, who admitted her to a hospital for six weeks. He concluded that she was suffering from anxiety neurosis and depression from the physical stress caused by her myalgia. A trial court awarded her \$30,000 for past pain and suffering and \$3,482.95 for medical expenses.

Affirming the decision, the appellate court said that the manufacturer and her physician had an obligation to warn her of the risk of myalgia and its prolonged, debilitating muscle pain. The patient was not given proper warning on myalgia and the government was liable for that failure to warn. The trial court did not err in finding that the vaccination was the actual cause of the patient's injuries, the appellate court said. — *Brazzell v. U.S.*, 788 F.2d 1352 (C.A.8, Iowa, April 18, 1986)

PRESIDENT'S PAGE

(Continued from page 182)

sician manpower and the erosion of public support. Like it or not, physicians must take up the burden of ownership if they want to maintain influence. They only other alternative is unionism in one form or another.

No one has greater trepidation about the perils of ownership than I do. Physicians are generally fierce individualists who have great difficulty agreeing upon policy. Many competitive forces divide us. Serious potential for conflict of interest is inherent in physician ownership. I, too, "fear that few of us have any talent or inclination" in business ventures.

Nevertheless, in states where physicians do not own the foundations, PRO activities are much more onerous and less effective than in Mississippi where MFMC is ours. I shudder to think what the medical liability market would be like in Mississippi without MACM. MSMA Services is thriving as a business and at the same time serving the needs of member physicians. Organized medicine can exercise ownership in a responsible way if we set our minds to it. We are obligated to try, I believe, because, for now, ownership offers the only secure power base from which physicians can hope to protect professionalism and the quality of patient care from non-professional interlopers.



Doctor,

Have you ever looked for a different way to say "Thank You," "Congratulations," or "Get Well Soon"?

All of these messages are available, along with memorial tributes, in greeting cards from the MSMA Auxiliary. Each card signifies your donation to the AMA-ERF in the name of a friend or colleague.

For information about AMA-ERF greeting cards for year-round use, contact a member of your local MSMA Auxiliary, or Sara Ann Owen, 604 Woodbine Lane, Hattiesburg, MS 39401; telephone 264-8516.

MEDICAL ORGANIZATION

Dr. Weems is Inaugurated, Dr. Steckler Named President-Elect

Dr. W. Lamar Weems of Jackson was inaugurated 1987-88 president of the MSMA at the closing meeting of the 119th Annual Session held in Biloxi last month. He succeeds Dr. W. Joseph Burnett of Oxford. Dr. David R. Steckler of Natchez was named president-elect.

The new MSMA president is professor of surgery and chief of the division of urology at the University of Mississippi Medical Center. He is MSMA's senior delegate to the American Medical Association, and a former recipient of the MSMA's Community Service Award.

Dr. Steckler, the new president-elect, served as chairman of the MSMA Board of Trustees for 1986-87. He is a member and past president of the Mississippi Pathology Society.

More than 800 registered for the five-day session, which featured a full program of scientific, business and fellowship activities.

Among special guests was Dr. John J. Coury, president of the AMA, who addressed the House of Delegates. Another special guest was James J. Kilpatrick, columnist and political commentator, who entertained at the annual MSMA/MSMA Auxiliary membership banquet. Congressman Wayne Dowdy also was on the program, speaking at the annual meeting of the Mississippi Foundation for Medical Care.

In addition to electing new officers, the House of Delegates took action on reports and resolutions concerning health care in Mississippi. A summary of House actions appears in this issue.



Dr. W. Lamar Weems of Jackson, center, was inaugurated president of the association during the 119th Annual Session. At left and right are Dr. David R. Steckler of Natchez, president-elect, and Dr. W. Joseph Burnett of Oxford, immediate past president.



Dr. David R. Steckler, left, chairman of the MSMA Board of Trustees, administers the oath of office to Dr. Weems, assisted by Charles L. Mathews, center, MSMA executive director.



Dr. Weems and his wife, Nanette, receive congratulations from MSMA members and guests as the House of Delegates adjourns.



Dr. Weems, left, and Dr. Burnett prepare to greet well-wishers at the conclusion of the House of Delegates session.

Elections Highlight House of Delegates Sessions

Delegates to the 119th Annual Session elected Dr. David R. Steckler of Natchez as MSMA's 1987-88 president-elect, and named Dr. David M. Owen of Hattiesburg to a second term on the MSMA Board of Trustees. As a result of the elections, three new trustees will help direct association policy: Drs. Fred L. McMillan of Jackson, Mal G. Morgan of Natchez, and David L. Clippinger of Gulfport.

Dr. James C. Waites of Laurel was elected speaker of the House of Delegates, and Dr. H. Vann Craig of Natchez was named vice speaker. Dr. Bernard Hunt of Grenada was elected vice president, north district. Re-elected as delegates to the AMA were: Drs. J. Ed Hill of Hollandale, Carl G. Evers of Jackson, and Jimmy Waites of Laurel. Re-elected as alternate delegates to AMA were: Drs. William C. Gates of Columbus, Gerald P. Gable of Hattiesburg, and Mal G. Morgan of Natchez.

Dr. Joseph E. Johnston of Mount Olive was re-elected as associate editor, JOURNAL MSMA, and Dr. James L. Hughes of Jackson was elected to a second term as chairman of the Surgery Plenary Group.

Elected to fill vacancies on various council posts were: Drs. George Ball of Jackson, Council on Budget and Finance; Dayton E. Whites of Lucedale, Council on Constitution and Bylaws; Rebecca Hodges of Kilmichael, Stacy Davidson of Cleveland, and Malcolm S. Moore of Tupelo, Council on Medical Education;

Also, Drs. Arthur A. Derrick of Durant, William C. Sistrunk of Jackson, and Walter D. Gunn of Quitman, Judicial Council; Drs. George E. McGee of Hattiesburg, Joseph R. Mitchell of Gulfport and J. C. Barnett of Brookhaven, Council on Legislation; Drs. Shelby C. Howell of Clarksdale, William A. Spencer of Sardis, and J. M. Patterson of Pontotoc, Council on Medical Service; and Drs. Terrell D. Blanton of Jackson, William B. Simmons of Meridian, and Jack C. Evans of Laurel, Council on Public Information.

Board of Trustees Elects Officers

Dr. J. Ed Hill of Hollandale was elected chairman of MSMA's Board of Trustees during the board's meeting June 7 in Biloxi. Dr. David M. Owen of Hattiesburg was named vice chairman and Dr. Stanley A. Wade, Jr. of Meridian was elected secretary.

Other members of the board are: Drs. Stanley Hartness, Kosciusko; Lee H. Rogers, Tupelo; John P. Lee, Forest; Fred L. McMillan, Jackson; Mal G. Morgan, Natchez; David L. Clippinger, Gulfport; W. Lamar Weems, President; David R. Steckler of Natchez, president-elect; and W. Joseph Burnett of Oxford, immediate past president.



Dr. Burnett, 1986-87 MSMA president, addresses the House of Delegates.



Mrs. Elizabeth Thompson presents Dr. Burnett with the James Grant Thompson Memorial Past President's Pin.



Dr. and Mrs. Burnett welcome Dr. and Mrs. Bruce Kuehnle to the President's Reception.



Dr. Burnett receives congratulations from Dr. and Mrs. David Owen.



Mrs. Burnett poses with AMA President Dr. Coury before the President's Reception.



Mrs. Jimmy Waites, MSMA Auxiliary president, and Dr. Waites were among those welcoming reception guests.



President-elect Dr. Weems and his wife Nanette greet former president Dr. Arthur Derrick, right, during the President's Reception.



Dr. Carl Evers presided as Speaker of the House of Delegates.



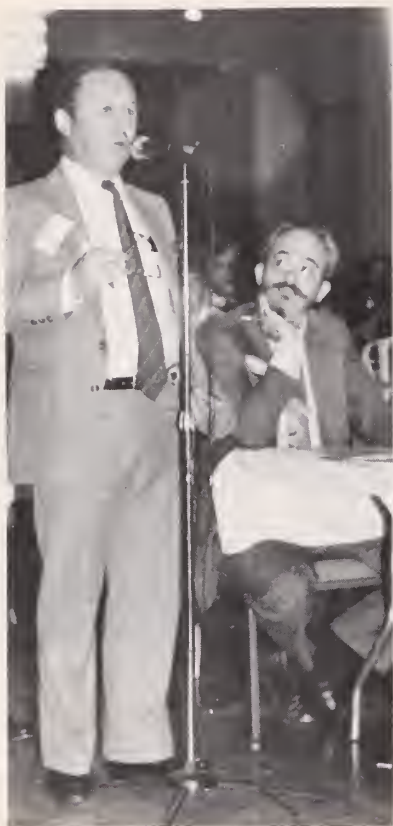
Dr. John Coury, AMA president, presents a memorial resolution to Mrs. Stanley Hill and her son Jimmy. The resolution, passed by the AMA House of Delegates, commended Dr. Hill for his many years of service as AMA delegate.



Dr. Ed Hill of Hollandale received the 1987 MSMA Community Service Award.



Dr. C. G. Sutherland, left, presents the Sixth Annual Robert S. Caldwell Award to Dr. Samuel Dean Newell, Jr., a fourth year resident in neurology at the University of Mississippi Medical Center. Mrs. Newell accompanied her husband to receive the award, presented by Medical Assurance Company of Mississippi, in recognition of excellence in medical practice, patient relations, and documentation of patient care.



Dr. Faser Triplett clarifies a point of discussion.



Dr. Frederick Tatum, chairman of the Reference Committee on Constitution and Bylaws, presented the committee's report.



Dr. Walter Rose presided as chairman of the Reference Committee on Reports of Officers, Board of Trustees, and Councils.



Delegates review their ballots before voting.

119th Annual Session, June 3-7, 1987

HOUSE OF DELEGATES HANDLES BUSY AGENDA

The House of Delegates of the Mississippi State Medical Association handled a busy agenda of reports and resolutions at the 119th Annual Session, held in Biloxi.

The House of Delegates took these major actions:

- Reaffirmed and gave a “vote of confidence” for the association’s plans to establish a statewide HMO/IPA.
- Noted and urged the Board of Trustees’ continued efforts to seek solutions to problems with services for a growing medically indigent population.
- Approved establishment of a Young Physicians’ Section.
- Adopted a policy statement on AIDS and recommended that when a reliable test to detect AIDS carriers becomes available, an AIDS carrier be reportable just as a carrier of any other communicable disease.
- Expressed advocacy and support for a health education curriculum developed by the State Department of Health.
- Adopted guidelines for “case manager programs.”
- Urged the MSMA Auxiliary to increase its political education and support activities.
- Urged support for a nationwide fee schedule for Medicare and Medicaid which would end present gross geographic differences in such fees.
- Adopted a recommendation that Medicaid eligibility be expanded to the fullest extent possible under federal guidelines.
- Supported increased funding and better organization of the State Medical Examiner’s Office.
- Commended and urged all MSMA members to support the association’s “CommuniCare Program.”
- Urged Medicare to more carefully edit statements to patients.
- Endorsed and urged MSMA members to support Rotary (Clubs) International “Polio Plus” project.
- Assigned the association’s Council on Medical Service responsibility for ongoing review and coordination of implementation of “The Health Policy Agenda for the American People.”
- Endorsed legislation to prohibit the use of all-terrain vehicles on public roads.
- Commended Dr. George C. Furr of Clarksdale for his efforts to determine the safety of pesticide use.
- Presented to Mrs. Stanley Hill a memorial resolution adopted by the AMA House of Delegates commending Dr. Hill for his years of service.
- Presented the 1987 MSMA Community Service Award to Dr. J. Ed Hill of Hollandale.

● Presented checks for \$26,014.91 and \$2,113.00 to the University of Mississippi School of Medicine. The gifts represent unrestricted and medical education AMA-ERF contributions by Mississippi physicians and their spouses.

Serving on Reference Committees of the House were:

Reference Committee on Rules and Order of Business *Reference Committee on Constitution and By-laws*

Whitman B. Johnson, M.D., Chairman
Frederick L. McMillan, M.D.
William T. Oakes, M.D.

Frederick E. Tatum, M.D., Chairman
Eric E. Lindstrom, M.D.
Max L. Pharr, M.D.

*Reference Committee on Reports of Officers,
Board of Trustees and Councils*

Walter H. Rose, M.D., Chairman
George E. Abraham, M.D.
Terrell D. Blanton, M.D.
Bruce M. Kuehnle, M.D.
Charles L. Wilkinson, M.D.

Nominating Committee

Mal G. Morgan, M.D., Chairman
Ed Hemness, M.D.
Arthur A. Derrick, M.D.
William T. Oakes, M.D.
Julian Henderson, M.D.
Dewitt Crawford, M.D.
Gerald P. Gable, M.D.
D. H. Short, M.D.

Credentials Committee

Don Q. Mitchell, M.D., Chairman
Robert F. Carter, M.D.
Walter Mack Gorton, M.D.

120th Annual Session

June 15-19, 1988

Biloxi, MS



Dr. Francis Morrison debates a point of discussion.



Dr. George McGee presided as chairman of the newly organized Young Physicians Section.



Dr. Mal G. Morgan, chairman of the Nominating Committee, presents the report.



Delegates mark their ballots.



Among members of the Fifty Year Club who attended a luncheon in their honor were, from left: Dr. J. T. Davis, Dr. Robert Blount, Dr. Marian Godbey, Dr. Rod Jenkins, and Dr. T. A. Baines.



Dr. John T. Lane, left and Dr. Guy Vise, attended the Fifty Year Club luncheon.



"Extracorporeal Shock Wave Lithotripsy," a scientific exhibit by Dr. W. H. Merrell and Dr. W. M. Bradford, received the Aesculapius Award for excellence of presentation.



Mrs. Stanley Hill thanked the House of Delegates for a memorial resolution paying tribute to Dr. Hill.



Dr. Don Q. Mitchell, MSMA secretary-treasurer, reports Annual Session attendance figures to the House of Delegates.



Dr. Bill Gates presided as chairman of the Hospital Medical Staff Section.



A favorite occasion was the Pig Roast featuring Dr. David Steckler's specialty, prepared on his unique cooker. Enjoying the Saturday afternoon barbeque are Dr. and Mrs. Ray Pate, left, and Dr. W. H. Merrell, all of Jackson.



Dr. and Mrs. Stanley Hartness, left, talk with Dr. John P. Lee during the Saturday poolside party. Drs. Hartness and Lee are members of the MSMA Board of Trustees.

Thanks to Our Exhibitors

The MSMA expresses appreciation to the following exhibitors, who participated in the Technical Exhibit during the 119th Annual Session.

Abbott Laboratories
Airstat-MS Baptist Medical Center
APS Systems
Automated Health Systems, Inc.
Bedsole Surgical Supply
Blue Cross & Blue Shield of MS, Inc.
Business Equipment & Supply Company
CareMed, Inc.
Charter Hospital of Jackson
E.F. Hutton
Evangeline Medical & X-Ray Distributors Corp.
Foster Medical Corp.
Glaxo, Inc.
Health Care Suppliers
Helping Hands Private Nursing, Inc.
The Hester Group, P.A.
Hoffman LaRoche
Integrated Management Solutions, Inc.
Key Pharmaceuticals

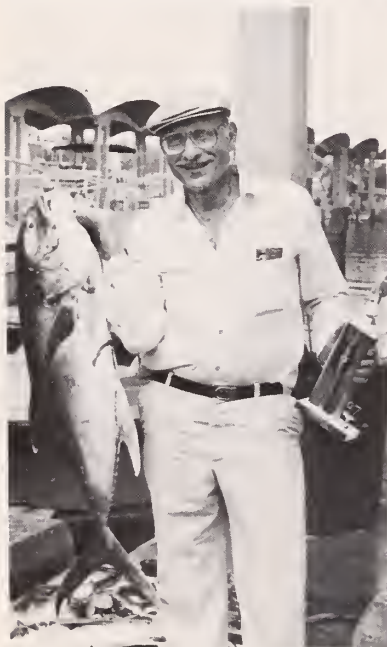
Lanier Business Products
McNeil Pharmaceuticals
Mead Johnson Nutritional Division
Medical Assurance Company of MS
Medical Pathology Laboratories
Medical Payment Systems, Inc.
Methodist Rehabilitation Center
MicroAge of Jackson
MS Army National Guard
MS Baptist Chemical Dependency Center
MS Blood Service
MS Cattle Industry Board
MS Foundation for Medical Care, Inc.
MS Medical Products, Inc.
MS Physicians Health Plan
MS Seat Belt Coalition
MS State Department of Health
MSMA Benefit Plan & Trust
MS Transplant Program
Mouton Medical Systems

Parke-Davis
Pfizer Laboratories
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Professional Disability Associates
Puckett Laboratories
Reid-Rowell
Reynolds & Reynolds
Ross Laboratories
Russ Pharmaceutical, Inc.
Salcris Systems
W.B. Saunders Company
Seako, Inc.
Smith Kline & French Laboratories
Southern Medical Association
The Travelers Insurance Co.- Medicare
Unifirst Bank for Savings
US Army Health Professional Support Agency
Weight Watchers



At far right is Lindsay Morgan, daughter of Dr. and Mrs. Mal Morgan, who received a trophy for largest Spanish mackerel.

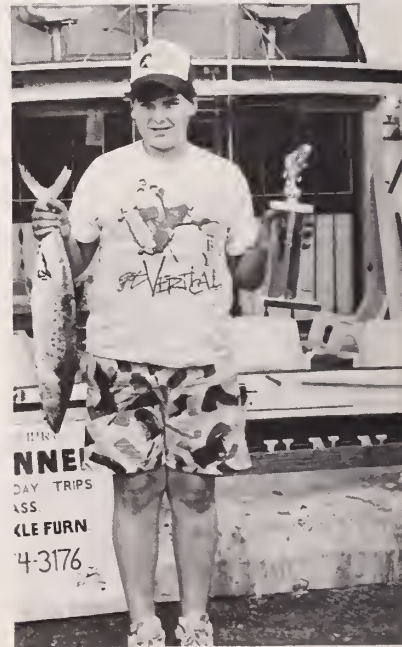
In left photo is Brandon Morgan, right, who gets assistance from a friend to display his winning jackfish.



Dr. John Marascalco received a trophy for his jackfish.



Elise Hudson, daughter of Dr. Harold Hudson, displays her winning bonita.



Ricky Rausa, son of Dr. Alfio Rausa, was a winner for largest Spanish mackerel.



Winners of women's doubles competition, at left and right, are Martha Ann Pittman and Martha Ruth Parvin. At center is Linda Meyer, who received the runner-up trophy with her partner Mikel Nimmo (not pictured).



Tennis tournament co-chairman Dr. Paul Moore, center, presented trophies to men's doubles winners Dr. Ronnie Bernadas, left, and Dr. Al Dauterive, right.

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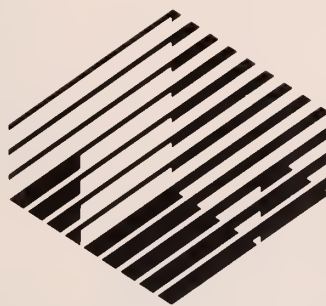


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Mrs. Joe Herrington, right, is the 1987-88 president of the MSMA Auxiliary. Other officers installed during the Annual Session are, from left: Mrs. Roy D. Duncan, recording secretary; Mrs. Billy Walker, treasurer; Mrs. Eric Lindstrom, fourth vice president; Mrs. Ben Carmichael, second vice president; Mrs. Kenneth Hines, third vice president; Mrs. George Abraham, first vice president; and Mrs. Doyle Smith, president-elect.

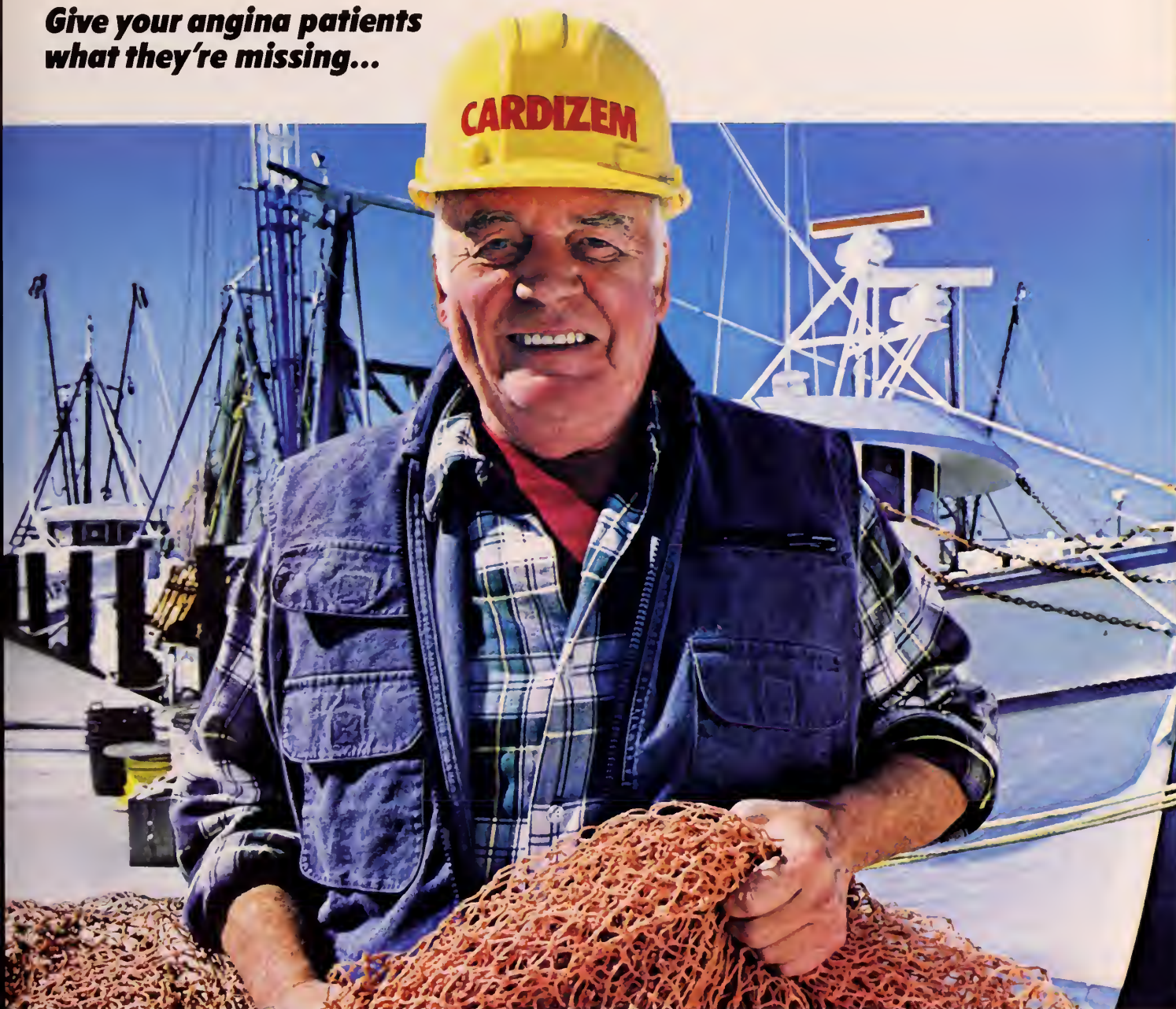


Dr. Burnett introduces to the House of Delegates Dr. Norman Nelson, UMC vice chancellor for health affairs and school of medicine dean, who accepted checks totaling \$28,127.91. The gifts represented AMA-ERF contributions to the school from Mississippi physicians and spouses. At left is Mrs. David Owen, MSMA Auxiliary AMA-ERF chairman.



Mrs. Jimmy Waites of Laurel, 1986-87 president of the MSMA Auxiliary, reported to the MSMA House of Delegates.

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CONTRAINDICATIONS

CARDIZEM is contraindicated in (1) patients with sick sinus syndrome except in the presence of a functioning ventricular pacemaker, (2) patients with second- or third-degree AV block except in the presence of a functioning ventricular pacemaker, and (3) patients with hypotension (less than 90 mm Hg systolic).

WARNINGS

- Cardiac Conduction.** CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (six of 1,243 patients for 0.48%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
- Congestive Heart Failure.** Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dp/dt). Experience with the use of CARDIZEM alone or in combination with beta-blockers in patients with impaired ventricular function is very limited. Caution should be exercised when using the drug in such patients.
- Hypotension.** Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
- Acute Hepatic Injury.** In rare instances, significant elevations in enzymes such as alkaline phosphatase, CPK, LDH, SGOT, SGPT, and other symptoms consistent with acute hepatic injury have been noted. These reactions have been reversible upon discontinuation of drug therapy. The relationship to CARDIZEM is uncertain in most cases, but probable in some. (See PRECAUTIONS.)

PRECAUTIONS

General. CARDIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any new drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic

function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued. In dogs, doses of 20 mg/kg were also associated with hepatic changes; however, these changes were reversible with continued dosing.

Drug Interaction. Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM. (See WARNINGS.)

Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated. Available data are not sufficient, however, to predict the effects of concomitant treatment, particularly in patients with left ventricular dysfunction or cardiac conduction abnormalities. In healthy volunteers, diltiazem has been shown to increase serum digoxin levels up to 20%.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in *in vitro* bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women, therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Diltiazem is excreted in human milk. One report suggests that concentrations in breast milk may approximate serum levels. If use of CARDIZEM is deemed essential, an alternative method of infant feeding should be instituted.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded.

In domestic placebo-controlled trials, the incidence of adverse reactions reported during CARDIZEM therapy was not greater than that reported during placebo therapy.

The following represent occurrences observed in clinical studies which can be at least reasonably asso-

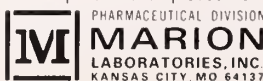
ciated with the pharmacology of calcium influx inhibition. In many cases, the relationship to CARDIZEM has not been established. The most common occurrences as well as their frequency of presentation are: edema (2.4%), headache (2.1%), nausea (1.9%), dizziness (1.5%), rash (1.3%), asthenia (1.2%). In addition, the following events were reported infrequently (less than 1%).

Cardiovascular	Angina, arrhythmia, AV block (first degree), AV block (second or third degree — see conduction warning), bradycardia, congestive heart failure, flushing, hypotension, palpitations, syncope.
Nervous System	Amnesia, gait abnormality, hallucinations, insomnia, nervousness, paresthesia, personality change, somnolence, tinnitus, tremor.
Gastrointestinal	Anorexia, constipation, diarrhea, dysgeusia, dyspepsia, mild elevations of alkaline phosphatase, SGOT, SGPT, and LDH (see hepatic warnings), vomiting, weight increase.
Dermatologic	Petechiae, pruritus, photosensitivity, urticaria.
Other	Amblyopia, dyspnea, epistaxis, eye irritation, hyperglycemia, nasal congestion, nocturia, osteoarthralgia, pain, polyuria, sexual difficulties.

The following postmarketing events have been reported infrequently in patients receiving CARDIZEM: alopecia, gingival hyperplasia, erythema multiforme, and leukopenia. However, a definitive cause and effect between these events and CARDIZEM therapy is yet to be established. **Issued 7/86**
See complete Professional Use Information before prescribing.

References: 1. Pepine CJ, Feldman RL, Hill JA, et al. Clinical outcome after treatment of rest angina with calcium blockers. Comparative experience during the initial year of therapy with diltiazem, nifedipine, and verapamil. *Am Heart J* 1983; 106(6): 1341-1347. 2. Shapiro W. Calcium channel blockers: Actions on the heart and uses in ischemic heart disease. *Consultant* 1984; 24(Dec): 150-159. 3. Johnston DL, Lesoway R, Humen DP, et al. Clinical and hemodynamic evaluation of propranolol in combination with verapamil, nifedipine and diltiazem in exertional angina pectoris: A placebo-controlled, double-blind, randomized, crossover study. *Am J Cardiol* 1985; 55:680-687. 4. Cohn PF, Braunwald E. Chronic ischemic heart disease. In Braunwald E (ed): *Heart Disease. A Textbook of Cardiovascular Medicine*, ed 2. Philadelphia: WB Saunders Co, 1984; chap 39. 5. Schroeder JS. Calcium and beta blockers in ischemic heart disease. When to use which. *Mod Med* 1982; 50(Sept): 94-116.

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PERSONALS

JAMES ACHORD of UMC attended a meeting of the Council of Subspecialty Societies of the American College of Physicians in Philadelphia, Pennsylvania.

VINOND K. ANAND of UMC presented a paper at the joint meeting of the American Laryngological, Rhinological and Otological Society, Inc. and the American Academy of Facial Plastic and Reconstructive Surgery in Sante Fe, New Mexico.

ORLANDO ANDY of UMC made a presentation at the Society of Biological Psychiatry in Chicago.

W. O. BARNETT of Jackson was keynote speaker at a meeting in Hayward, California, of the Southern Alameda Chapter of the United Ostomy Association.

BLAIR BATSON of UMC was examiner for the American Board of Pediatrics in Los Angeles.

JOHN D. BURK of Tupelo received the McFarland Special Service Award and was elected president-elect of the American Diabetes Association, Mississippi Affiliate.

J. D. FLY of Jackson participated on the program for a meeting in Jackson of the American Diabetes Association, Mississippi Affiliate.

GARY H. GROFF of Pascagoula has been recertified by the American Academy of Family Physicians.

JAMES D. HARDY of UMC was a speaker at the 80th birthday celebration of Dr. Jonathan E. Rhoads at the University of Pennsylvania in Philadelphia.

ROBERT HIGGINS of Jackson was moderator for a session at the combined meeting of the Mississippi and Alabama Orthopaedic Societies, and presented a paper on "Anterior Cruciate Ligament Repairs in World Class Skiers."

L. G. HOPKINS of Oxford was recognized by Bell South Corporation for his contributions in voluntary community service. He received the "Spirit of Service in Health" award.

MICHAEL LEBLANC of UMC has been selected the Ernest G. Spivey Researcher for 1987 by the American Heart Association, Mississippi Affiliate.

J. MARC MAJURE of Jackson has been named a fellow of the American Academy of Pediatrics.

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PERSONALS/Continued

JOHN MORRISON of UMC lectured at the ninth annual High Risk Pregnancy Course for Nurses at Tampa/St. Petersburg, Florida.

HOWARD NICHOLS of UMC was examiner for the American Board of Pediatrics in Los Angeles.

MAX TAYLOR of Tupelo presented an abstract at the 14th Annual Association of Practitioners for Infection Control in Miami, Florida.

ROBERT L. WILLIAMS of Biloxi conducted a two-day seminar on Attention Deficit Disorders to the Bermuda School System as a guest of the government of Bermuda.

119 Receive M.D. Degrees At UMC Commencement

Veterans Administration Chief Medical Director Dr. John A. Gronvall, who began his career in academic medicine in 1960 at the University of Mississippi Medical Center, addressed some 346 students receiving degrees in the health sciences at the university's 31st annual Commencement Exercises at city auditorium May 31.

The number included 119 who received the M.D., 105 for the B.S. in nursing, 30 for the D.M.D., 11 for the B.S. in medical technology, 23 for the B.S. in physical therapy, six for the B.S. in nurse anesthesiology, 14 for the B.S. in respiratory therapy, one for the B.S. in cytotechnology, and 10 for the B.S. in dental hygiene — the first the institution has awarded.

Also 10 for the M.S. in nursing, six for the master of science, and six for the Ph.D.

Ole Miss Chancellor R. Gerald Turner conferred the degrees. Candidates were presented by Dr. Norman C. Nelson, vice chancellor for health affairs and School of Medicine dean; Dr. Edrie J. George, School of Nursing dean; Dr. Thomas E. Freeland, School of Health Related Professions dean; Dr. John H. Hembree, School of Dentistry dean, and Dr. Ben H. Douglas, assistant vice chancellor for graduate studies and chairman of the Graduate Council at the Medical Center.

Robert William Naef III of Jackson, son of R. William Naef, Jr. and Julie I. Naef, was recognized as the top medical school graduate. Dr. Naef, who earned his degree summa cum laude, received the University's Leathers Award as the

graduating medical student with the highest academic average. Dr. Naef will intern at the U. S. Air Force Medical Center at Keesler Air Force Base in Biloxi. He completed undergraduate work at Ole Miss in Oxford.

Magna cum laude graduates in the School of Medicine were Stephanie Lott Elkins of Hattiesburg, Bailey Joe Ferguson of Pontotoc, and Eric Lane Rushing of Brookhaven.

Cum laude medical school graduates included Ronald Glenn Herrington of Maben, David Charles Hales of Leland, Joiner Mack Haltom III of Pascagoula, Donald Bradford Russell of Aberdeen and Kenneth Ray Pate and Rebecca Rogers Duff, both of Jackson.

Belinda Wellden Williams of Clinton, daughter of Mr. and Mrs. Norman C. Wellden, graduated magna cum laude in the School of Nursing and received the Christine L. Oglevee Memorial Award as the outstanding graduate in the school.

Kathryn Cecile Simmons of Monticello, daughter of Mr. and Mrs. William G. Speights, graduated summa cum laude in the School of Health Related Professions and received the Health Related Professions Award — the Dr. Virginia Stancil Tolbert Award — as the outstanding health related professions student. Miss Simmons received the B.S. in dental hygiene.

Marlon Dean Wakham of Drew, son of Mr. and Mrs. Eugene Wakham, was the summa cum laude graduate in the School of Dentistry and received the Wallace V. Mann, Jr. Award — the Dean's Medal in Dentistry — as the graduating dental student with the highest four-year average.

POSTGRADUATE CALENDAR

August

OPHTHALMOLOGY UPDATE 1987

Aug. 15

Ramada Renaissance Hotel, Jackson

ADVANCED TRAUMA LIFE SUPPORT

Aug. 20-21

University Medical Center

For information or a program brochure, contact the Division of Continuing Health Professional Education, the University of Mississippi Medical Center, 2500 North State Street, Jackson, Mississippi 39216-4505; or call (601) 984-1300.

Top Medical School Graduate Honored



Robert William Naef, III, of Jackson, at center, son of R. William Naef, Jr. and Julie I. Naef, was recognized as the top medical school graduate in Commencement Exercises at the University of Mississippi Medical Center on May 31. Dr. Naef, who earned his degree summa cum laude, received the University's Leathers Award as the graduating medical student with the highest academic average. He will intern at the U.S. Air Force Medical Center at Keesler Air Force Base in Biloxi, and complete undergraduate work at Ole Miss. With him are at left, Dr. Norman C. Nelson, UMC vice chancellor for health affairs, and at right, Ole Miss Chancellor R. Gerald Turner.

Virginia Tolbert Award Presented at UMC Commencement



Kathryn Cecile Simmons of Monticello, at right, graduated summa cum laude in the School of Health Related Professions at the University of Mississippi Medical Center and received the Health Related Professions Award — the Virginia Stancil Tolbert Award — as the outstanding health related professions student. The award is sponsored annually by the Mississippi State Medical Association. Miss Simmons, who received the B.S. in dental hygiene, is the daughter of Mr. and Mrs. William G. Speights of Monticello.

Patient Information Brochures/Services Available from MSMA

- "CommuniCare" Brochures
- Health Care Cost Brochures
- Patient Survey Forms
- "Changes in Health Care: What Your Family Should Know"
- AIDS Speaker Bureau

UMC Announces Faculty Appointments

Nine have been appointed to the School of Medicine faculty at the University of Mississippi Medical Center for the new academic session.

The appointments were announced by Dr. Norman C. Nelson, UMC vice chancellor for health affairs, following approval by the Board of Trustees of State Institutions of Higher Learning.

Appointed were Dr. William Arthur Bennett, instructor in obstetrics and gynecology (research); Dr. John D. Current, assistant professor of anesthesiology; Dr. David J. Dzielak, assistant professor of surgery (research); Dr. Francis Joseph Eicke, assistant professor of family medicine; Dr. Mitsuo Konno, instructor in medicine (research); Dr. Able John Maluf, Jr., instructor in radiology; Dr. Patrick Paul McCaslin, assistant professor of pharmacology and toxicology; Dr. William Ernest Tew, instructor in radiology; and Dr. James Kirk Wilson, instructor in anesthesiology.

Dr. Bennett earned the associate degree at Hinds Junior College and the B.S. in 1978, the M.S. in 1979, and the Ph.D. in 1987 at Mississippi State University. He has worked as a research assistant in dairy science at Mississippi State and as a research associate in animal science at Louisiana State University and Mississippi State. He has been a senior research associate in obstetrics and gynecology at UMC since February, 1987.

Dr. Current, who received the B.S. in 1971 from the U.S. Military Academy, earned the M.D. in 1975 at Indiana University and did his internship at Fitzsimons Army Medical Center and a residency at Brooke Army Medical Center. A Lieutenant Colonel in the U.S. Army Medical Corp since 1967, he was flight surgeon in the Bioengineering Division of the USA Aeromedical Research Laboratory at Fort Rucker from 1976-1978; a staff anesthesiologist at Walter Reed Army Medical Center from 1981-1984; chief of the anesthesia and operative service at Tripler Army Medical Center in Honolulu, Hawaii, from 1984 until 1986, when he was appointed chief of anesthesia and operative service at Brooke Army Medical Center at Fort Sam Houston in Texas.

Dr. David J. Dzielak earned the A.A.S. in 1974 at the State University of New York Delhi and the B.S. in 1976 at Cornell University. He earned the Ph.D. in 1981 at The Medical Center and did his post-doctoral fellowship there in physiology and biophysics. He was a student research technician in

pharmacology and toxicology at UMC from 1979-1980. In 1982 he was named instructor in physiology and biophysics and was promoted to assistant professor in 1984. He accepted a position as senior research scientist with Abria Laboratories, Inc. in Columbus, Ohio, in 1986 and was on staff there until his Medical Center appointment.

Dr. Eicke, who has been associate professor of psychology and coordinator of counseling and educational psychology at Ole Miss since 1984, earned the A.B. in 1961 at Dartmouth College, the M.Ed. in 1968 at Tulane University, and the Ed.D. in 1971 at the University of Alabama, where he was instructor in counseling and guidance from 1968-1971. He has been visiting assistant professor of guidance and educational psychology at Ole Miss, and was assistant professor of education and psychology at Florence State University until his appointment to the Ole Miss faculty in 1972 as assistant professor of guidance and educational psychology. He was named associate professor in 1977. Dr. Eicke also has been an administrative officer in the U.S. Air Force at Amarillo Air Force Base in Texas, and a postal officer with the 11 Air Postal Squadron in Thailand. He was a teacher and counselor at Chalmette High School in Chalmette, Louisiana, from 1965-1968.

Dr. Konno has been a research assistant in anesthesiology at Iwate Medical University in Japan since 1985, where he attended medical school from 1976-1982, was a resident fellow in anesthesiology from 1982-1985, and earned the M.D. in 1987.

Dr. Malouf earned the B.A. in 1975 at Mississippi State University, and the M.D. in 1981 at Ole Miss. He did his internship at Baptist Memorial Hospital with residencies at Vanderbilt University and the Mississippi Medical Center. He has been a staff physician in Social Security Administration since 1983.

Dr. McCaslin earned the B.S. in 1980 at the University of Texas at Austin and the M.D. in 1984 at the University of Texas Health Sciences Center at San Antonio. He has been a postdoctoral fellow at the University of Texas Health Sciences Center since 1984.

Dr. Tew, a 1978 graduate of Mississippi State University, earned the M.D. in 1982 at UMC, where he did his internship and residencies in surgery and radiology. He also was in private practice in Jackson in 1984.

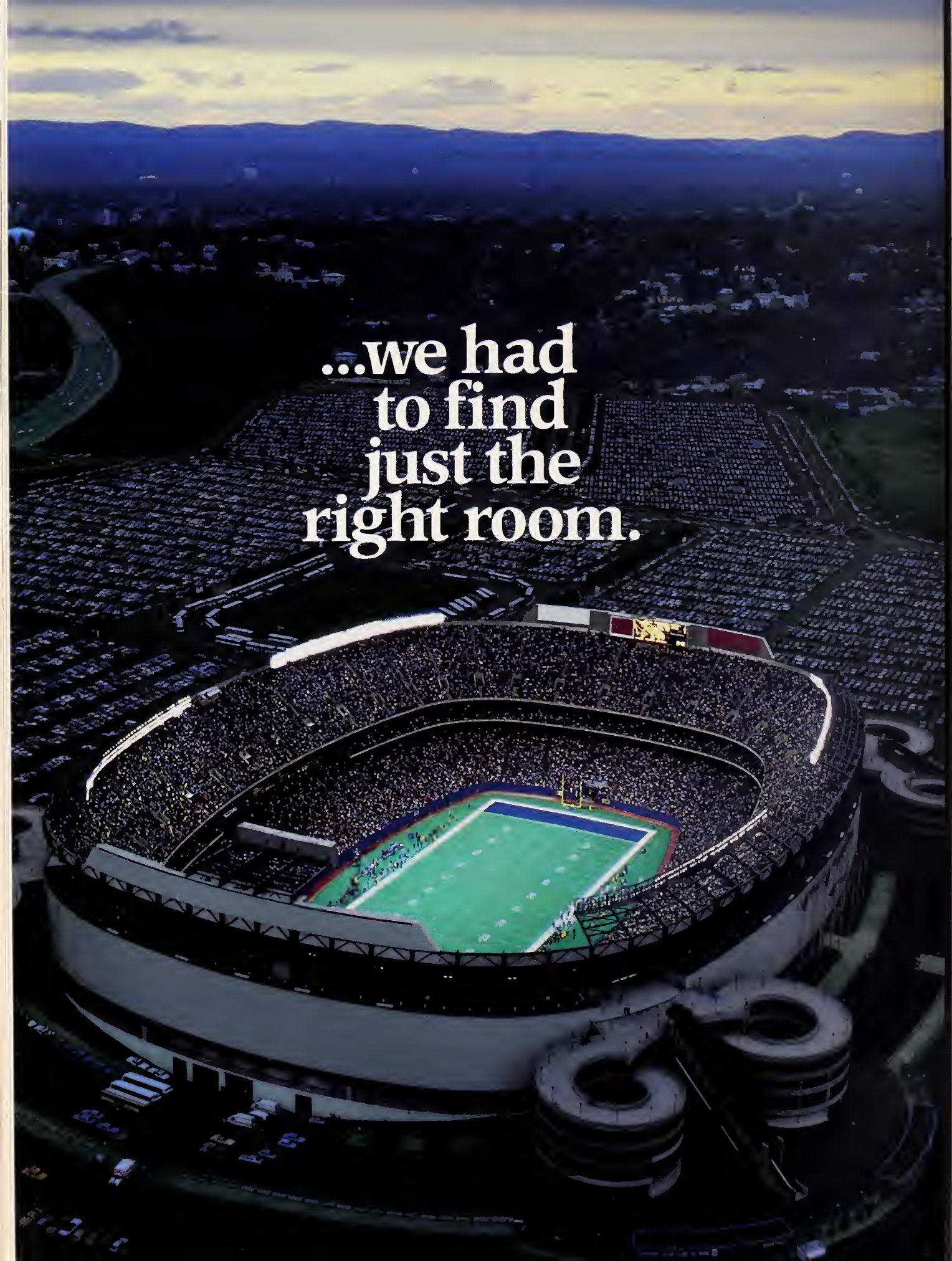
Dr. Wilson earned the B.S. in 1980 at Baylor University and the M.D. in 1984 at the University of Texas at Houston. He did his residency in anesthesiology at UMC.

To show you how many
hypertensives stayed on

INDERAL[®] LA
(PROPRANOLOL HCl)

after a major nationwide trial...



An aerial photograph of a large, modern stadium at night. The stadium is filled with spectators, and the football field is brightly lit. The surrounding area includes parking lots, roads, and distant city lights under a dark sky.

...we had
to find
just the
right room.

60,073 patients (90%) who started on INDERAL LA stayed on INDERAL LA.^{1*}

Surprising? Not really.

Because most patients on INDERAL LA (propranolol HCl) don't even know it's working.

A recent double-blind, placebo-controlled, crossover study in 138 hypertensive patients² revealed that INDERAL LA has a side effects profile unsurpassed by atenolol or metoprolol — which shows how well-tolerated once-daily INDERAL LA can be.

Sole therapy or concomitant therapy?

Fifty-nine percent of the time, INDERAL LA stood on its own.

The patients in the nationwide compliance trial were no different from yours. Generally when the antihypertensive regimen is complicated, compliance may become a problem. So, the effectiveness of INDERAL LA as once-daily monotherapy is a big plus. Of the remaining hypertensives in the program, 36% were treated merely with the addition of a diuretic to INDERAL LA.

For the noncompliant patients in your practice, INDERAL LA may well be the answer.

Almost 20,000 of the patients in the nationwide compliance trial were identified as having been noncompliant with their previous antihypertensive therapy. Their physicians reported that 88% showed improved compliance when placed on once-daily INDERAL LA.

Control, comfort, and compliance

ONCE-DAILY
INDERAL[®] LA
(PROPRANOLOL HCl) LONG ACTING CAPSULES

Like conventional INDERAL Tablets, INDERAL LA should not be used in the presence of congestive heart failure, sinus bradycardia, cardiogenic shock, heart block greater than first degree, and bronchial asthma.

*After a 30-day trial with INDERAL LA, physicians reported that 90% of the patients would remain on INDERAL LA.

The one you know best keeps looking better

Please see next page for brief summary of prescribing information

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INDERAL[®] LA 60 mg
(PROPRANOLOL HCl) LONG ACTING CAPSULES
NOW AVAILABLE...

The one you know best keeps looking better

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. INDERAL LA is formulated to provide a sustained release of propranolol hydrochloride. INDERAL LA is available as 60 mg, 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. INDERAL is a nonselective beta-adrenergic receptor-blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor-stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by INDERAL, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (60, 80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with INDERAL LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of INDERAL Tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

INDERAL LA should not be considered a simple mg-for-mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to INDERAL LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, INDERAL LA has been therapeutically equivalent to the same mg dose of conventional INDERAL, as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. INDERAL LA can provide effective beta blockade for a 24-hour period.

INDICATIONS AND USAGE. Hypertension: INDERAL LA is indicated in the management of hypertension, it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first-degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.

WARNINGS. CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned, the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema) — PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, eg, dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOLYCEMIA. Beta blockers should be used with caution in diabetic patients if a beta-blocking agent is required. Beta blockers may mask tachycardia occurring with hypoglycemia, but other manifestations such as dizziness and sweating may not be significantly affected. Following insulin-induced hypoglycemia, propranolol may cause a delay in the recovery of blood glucose to normal levels.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol may change thyroid function tests, increasing T₄ and reverse T₃, and decreasing T₃.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should

be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Caution should be exercised when patients receiving a beta blocker are administered a calcium-channel-blocking drug, especially intravenous verapamil, for both agents may depress myocardial contractility or atrioventricular conduction. On rare occasions, the concomitant intravenous use of a beta blocker and verapamil has resulted in serious adverse reactions, especially in patients with severe cardiomyopathy, congestive heart failure or recent myocardial infarction.

Aluminum hydroxide gel greatly reduces intestinal absorption of propranolol.

Ethanol slows the rate of absorption of propranolol.

Phenyltolin, phenobarbital, and rifampin accelerate propranolol clearance.

Chlorpromazine, when used concomitantly with propranolol, results in increased plasma levels of both drugs.

Antipyrine and lidocaine have reduced clearance when used concomitantly with propranolol.

Thyroxine may result in a lower than expected T₃ concentration when used concomitantly with propranolol.

Cimetidine decreases the hepatic metabolism of propranolol, delaying elimination and increasing blood levels.

Theophylline clearance is reduced when used concomitantly with propranolol.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. INDERAL is excreted in human milk. Caution should be exercised when INDERAL (propranolol HCl) is administered to a nursing woman.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency usually of the Raynaud type.

Central Nervous System. Light-headedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy, visual disturbances, hallucinations, vivid dreams, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics. For immediate formulations, fatigue, lethargy and vivid dreams appear dose related.

Gastrointestinal. Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory. Bronchospasm.

Hematologic. Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL Tablets to INDERAL LA Capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg-for-mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary, especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION — Dosage must be individualized. The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS — Dosage must be individualized. Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three- to seven-day intervals until optimal response is obtained. Although individual patients may respond at any dosage level, the average optimal dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE — Dosage must be individualized. The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimal migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximal dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS — 80-160 mg INDERAL LA once daily.

PEDIATRIC DOSAGE — At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

REFERENCES:

- INDERAL LA National Compliance Evaluation Program. Data on file, Ayerst Laboratories.
- Ravid M, Lang R, Jutrin I. The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985; 145:1321-1323.

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PLACEMENT SERVICE

FAMILY PHYSICIAN NEEDED. Field Clinic, Centreville, MS. Multi-specialty group. Contact Richard Field, Jr., M.D., P.O. Box 339, Centreville, MS 39631; 601/645-5361.

PEDIATRICIAN: S. E. lakeside community of 35 thousand, supported by 70+ bed hospital losing current pediatrician. Associate with Ob-Gyn. Many referring physicians. Best schools in state. Two hours from Gulf coast. Superb housing. Competitive compensation/benefits package. Coverage available. Contact Amy, Tyler & Co., 9040 Roswell Road, Atlanta, GA 30350. Call (404) 641-6411.

EMERGENCY PHYSICIANS WANTED. Part-time and full-time positions in northeast Mississippi. Call (601) 328-8385.

FAMILY PHYSICIAN wanted for association in group practice. Contact R. N. Gilliland, M.D., Attala Medical Clinic, P.A., Kosciusko, MS 39090; phone 601/289-2411.

GENERAL SURGEON. S.E. lakeside community of 35k supported by 70+ bed hospital. Assume es-

tablished surgeon's ready-made practice and/or multi-specialty partnership option. *Best* schools in state; two hours from Gulf Coast. Superb housing. Experience a plus. Competitive compensation/benefits package. Contact Amy, Tyler & Co., 9040 Roswell Road, Atlanta, GA 30350. Call 404-641-6411.

BE A "WINTER TEXAN" INTERNIST. Enjoy the warm, beautiful Rio Grande Valley while practicing internal medicine with an internist. Texas license essential. Salary, living accommodations and malpractice insurance. Send curriculum vitae. 104 South Bryan Road, Mission, TX 78572 or phone (512) 585-2783 for more information.

ORTHOPEDIC SURGEON needed for a growing Minor Emergency Clinic on County Line Road in Jackson. Built-in referrals from two emergency physicians with established industrial medicine base. Willing to share x-ray equipment and technician's salary. Will build to suit needs on a lease, lease-option, or for sale basis. (601) 957-2273.

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Mississippi Emergency Association, P.A. (MEA) is a physician-owned and managed group committed to the financial security and personal development of each physician member. Compensation will vary depending on qualifications, experience, and work location. All inquiries will be kept confidential.

POSITION AVAILABLE IMMEDIATELY! A 409 bed hospital with a 24-hour Emergency Department in Jackson, Mississippi is looking for a full-time, Board Certified physician with two or more years experience. Excellent compensation and benefits.

POSITION AVAILABLE JULY 1, 1987! An 85 bed hospital with a 24-hour Emergency Department in Brandon, Mississippi is looking for a full-time, Board Qualified physician. Excellent compensation and benefits.

POSITION AVAILABLE JULY 1, 1987! A 160 bed Medical Center with a 24-hour Emergency Department in McComb, Mississippi is looking for a full-time Board Qualified physician. Opportunity for Directorship. Excellent compensation and benefits.

For more information, please write or call:

Sheila M. Lunceford, Assistant Administrator
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mation call 1-800-227-2533 (outside Missouri) or our Memphis office at 901/767-1301. Collect calls accepted.

FAMILY PHYSICIAN WANTED for association in group practice with Dayton E. Whites, M.D., Thomas R. Shaw, M.D., and Raymond E. Tipton, Sr., M.D., at Community Medical Center, P.A., 307 West Dewey Street, Lucedale, MS 39452. Contact any of the above at (601) 947-8181.

SENIOR PHYSICIAN: Two full time positions for fully licensed and board certified General Practitioner, at progressive state mental retardation facility. Small town in south Mississippi, 1½ hour drive from Mississippi Gulf Coast. Excellent fringe benefit package, salary in accordance with State Compensation Plan. For consideration, submit letter of interest and resume to: Personnel Office, Ellisville State School, Highway 11 South, Ellisville, MS 39437. We are an Equal Opportunity Employer.

EXCELLENT TEXAS OPPORTUNITIES, ENT, Family Practitioner, General Practitioner, General Surgeon, Internal Medicine, OB/GYN, Ophthalmologist, Oncologist, Pediatrician, Radiation Oncologist, to practice in one of several lake area communities, in the beautiful Piney Woods area of East Texas. Excellent quality of life, first year guarantee, etc. Other Texas opportunities available also. Reply with CV to Medical Support Services, Armando L. Frezza, 11509 Quarter Horse Trail, Austin, TX 78750; 512/331-4164.

HEMATOLOGIST/ONCOLOGIST to join Internal Medicine Clinic of Laurel. Modern, fully equipped hospital. Contact John Wallace, 1203 Jefferson Street, Laurel, MS; 1-800-654-7918 (MS WATS).

FAMILY PRACTICE. Contracted private practice opportunities, metro Alabama, 275+ bed hospital support. Recreational and cultural amenities. Compensation pkg: 70K + /insurances/3 weeks vacation/CME/annual merit review. Contact: Bob, Tyler & Co., 9040 Roswell Rd., Atlanta, GA 30388. Call (404) 641-6411 collect.

PHYSICIANS NEEDED

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

FAMILY PHYSICIAN

Family Practice opportunity. Private practice in Mississippi Gulf Coast area. Strong medical staff and community support. Excellent hospitals.

Contact:

**Robert L. Lingle,
Executive Director
Singing River Hospital System
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Pascagoula, MS 39567
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References: 1. Feighner JP, et al. *Psychopharmacology* 61:217-225, Mar 22, 1979. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

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Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Togomet), clinically significant effects have been reported involving delayed elimination and increasing steady state concentrations of the tricyclic drugs. Concomitant use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring

reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.


Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdose: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt). Available in bottles of 100 and 500, Tel-E-Dose[®] packages of 100, Prescription Paks of 50.

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Each tablet contains 10 mg clordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) (N)

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JOURNAL
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About the Cover

Ensuring medical care for the indigent is the topic of this month's president's page. The cover design is an abstract representation of the dilemma facing all parties — physicians seeking reasonable and ethical solutions, society seeking effective and affordable answers, and indigent persons facing the difficulties of their situations. — *Design by Bill Tyler of Jackson.*

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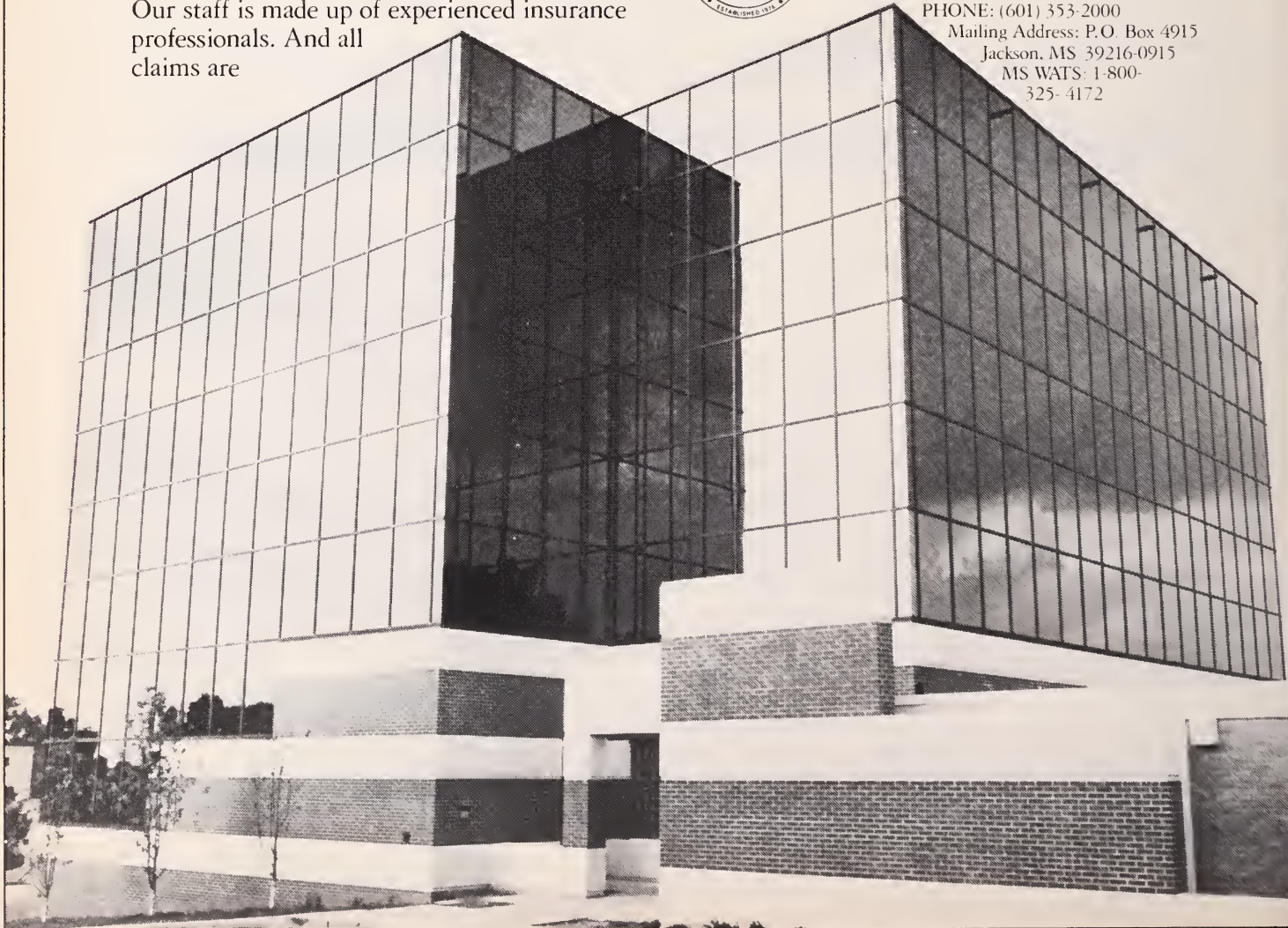
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NEWSLETTER

August 1987

Dear Doctor:

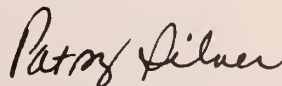
The U. S. Court of Appeals has upheld the constitutionality of a Massachusetts law prohibiting physicians in that state from charging Medicare beneficiaries more than the Medicare-determined reasonable charge. The Massachusetts Medical Society and the AMA are appealing the decision to the Supreme Court.

Last month Rhode Island became the third state, along with Massachusetts and Vermont, to prohibit physicians from "balance billing" Medicare patients. The Rhode Island law differs from Massachusetts' landmark legislation in that it does not make acceptance of assignment a condition for licensure. However, physicians who do not abide by the Medicare billing guidelines can be charged with "unprofessional conduct," for which no definite penalties are specified. The Rhode Island law does not apply to all Medicare recipients, but to the estimated 25,000 senior citizens who are eligible.

The Mississippi State Department of Health is sponsoring an Infectious Disease Seminar, October 29-30 at the Radisson-Walthall Hotel in Jackson. The seminar is for physicians, nurses and other health care professionals. Speakers will address the prevention and control of AIDS, tuberculosis, hepatitis, meningitis and enteric disease. For more information, contact the Office of Public Relations, P.O. Box 1700, Jackson, MS 39215-1700 or phone 960-7667.

All members are invited to visit the new MSMA headquarters building at 735 Riverside Drive in Jackson. Construction of the four-story building was completed in June, and the facility has been occupied by the Medical Assurance Company of Mississippi, the Mississippi Physicians Health Plan, MSMA, MSMA Services, Inc., and partial operations of the Mississippi Foundation for Medical Care. Watch for announcements about formal dedication ceremonies, to be held later this year.

Sincerely,



Patsy Silver
Managing Editor

Counsel to Authors

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A thesis summary of 75 to 100 words must accompany each manuscript.

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DATELINE

Medicare Participation And Assignment Rate

Washington, DC - HCFA has announced that 30% of all physicians who treat Medicare beneficiaries have signed participation agreements, a 2% increase over the 1986 rate. Non-participating physicians decide on a per-claim basis whether to accept assignment. In February the assignment rate on all claims was 70%, the highest in the history of the participating physician program.

Medical Liability Claims Data

Washington, DC - A GAO study of medical liability claims closed in 1984 (the first such study since 1978) reveals that \$349 million was spent to defend claims which were closed without indemnity. This is 43% of the total \$807 million spent to defend all claims. Data also show a highly disproportionate amount of total damages for non-economic damages (about 62%) is awarded in a very small number of high-verdict cases (2%).

Court Will Review LA Malpractice Act

Baton Rouge, LA - The Fourth Circuit Court of Appeals will examine the constitutionality of Louisiana's 1975 Medical Malpractice Act, after the state's Supreme Court refused to hear the appeal. The law limits recovery to \$500,000 and requires claims to be reviewed by a medical panel. The case involves a \$1.5 million verdict for a plaintiff, awarded even though the review panel found the defendant physician not at fault.

New York Considers MD Recredentialing

Albany, NY - If proposals by Gov. Cuomo and a special gubernatorial panel are enacted, New York will become the first state to require periodic reviews of physicians' competency. The proposal, which already has received support from various sectors, may take the form of accreditation by existing hospital review systems, office audit systems, or computer-based testing procedures.

AMA and FSMB Proposal For MD Data Bank

Chicago, IL - The AMA and the Federation of State Medical Boards are developing a joint proposal for operating a national physician clearinghouse under the Health Quality Improvement Act of 1986. The law protects peer review activities and requires hospitals, insurance companies, state medical boards, and professional societies to report all physician disciplinary actions and malpractice payments.

PHYSICIANS, SCHEDULE SOME TIME FOR YOUR COUNTRY.

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To find out about the benefits of serving with a nearby Army Reserve unit, we recommend you call our Army Medical Personnel Counselor.

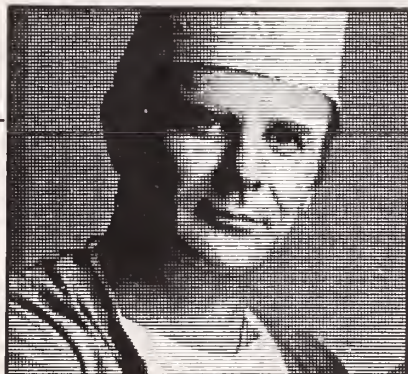
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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. INDERAL LA is formulated to provide a sustained release of propranolol hydrochloride. INDERAL LA is available as 60 mg, 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. INDERAL is a nonselective, beta-adrenergic receptor-blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor-stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by INDERAL, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (60, 80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with INDERAL LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of INDERAL Tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

INDERAL LA should not be considered a simple mg-for-mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to INDERAL LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, INDERAL LA has been therapeutically equivalent to the same mg dose of conventional INDERAL, as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. INDERAL LA can provide effective beta blockade for a 24-hour period.

INDICATIONS AND USAGE. **Hypertension:** INDERAL LA is indicated in the management of hypertension. It may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first-degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.

WARNINGS. CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned, the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema). PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, eg, dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers. **DIABETES AND HYPOLYCEMIA.** Beta blockers should be used with caution in diabetic patients if a beta-blocking agent is required. Beta blockers may mask tachycardia occurring with hypoglycemia, but other manifestations such as dizziness and sweating may not be significantly affected. Following insulin-induced hypoglycemia, propranolol may cause a delay in the recovery of blood glucose to normal levels.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol may change thyroid function tests, increasing T_4 and reverse T_3 , and decreasing T_3 .

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenergic receptor blockade can cause reduction of intraocular pressure. Patients should

be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Caution should be exercised when patients receiving a beta blocker are administered a calcium-channel-blocking drug, especially intravenous verapamil, for both agents may depress myocardial contractility of atrioventricular conduction. On rare occasions, the concomitant intravenous use of a beta blocker and verapamil has resulted in serious adverse reactions, especially in patients with severe cardiomyopathy, congestive heart failure or recent myocardial infarction.

Aluminum hydroxide gel greatly reduces intestinal absorption of propranolol.

Ethanol slows the rate of absorption of propranolol.

Phenylton, phenobarbitone, and rifampin accelerate propranolol clearance.

Chlorpromazine, when used concomitantly with propranolol, results in increased plasma levels of both drugs.

Antipyrine and lidocaine have reduced clearance when used concomitantly with propranolol.

Thyroxine may result in a lower than expected T_3 concentration when used concomitantly with propranolol.

Cimetidine decreases the hepatic metabolism of propranolol, delaying elimination and increasing blood levels.

Theophylline clearance is reduced when used concomitantly with propranolol.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. INDERAL is excreted in human milk. Caution should be exercised when INDERAL (propranolol HCl) is administered to a nursing woman.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia, congestive heart failure, intensification of AV block, hypotension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency usually of the Raynaud type.

Central Nervous System. Light-headedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy, visual disturbances, hallucinations, vivid dreams, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics. For immediate formulations, fatigue, lethargy and vivid dreams appear dose related.

Gastrointestinal. Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory. Bronchospasm.

Hematologic. Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSEAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL Tablets to INDERAL LA Capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg-for-mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary, especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION. Dosage must be individualized. The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS. Dosage must be individualized. Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three- to seven-day intervals until optimal response is obtained. Although individual patients may respond at any dosage level, the average optimal dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE. Dosage must be individualized. The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimal migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximal dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS. 80-160 mg INDERAL LA once daily.

PEDIATRIC DOSAGE. At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

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ORIGINAL PAPERS

Prevention of Bacterial Endocarditis: Current Recommendations

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IN BACTERIAL ENDOCARDITIS, bacteria infect the heart valves or other endocardial surfaces in the heart or central blood vessels. Most affected patients have congenital or rheumatic heart disease or other predisposing factors. Precise data are not available, but the incidence of bacterial endocarditis has not been diminishing in recent decades. The morbidity and mortality are significant and treatment requires prolonged hospitalization. In addition, the prevention of bacterial endocarditis has medico-legal implications.

The American Heart Association first issued a statement related to the prevention of bacterial endocarditis in 1955.¹ There have been revisions of this statement as increased knowledge and experience have indicated more effective and practical ways to protect susceptible patients from this disease. Most recently, a statement developed by the American Heart Association and the American Dental Association was released in late 1984.^{2, 3}

Limitations to the effectiveness of such an antibiotic program are recognized.^{4, 5, 6} Not all individuals at risk can be identified. Most causative organisms enter the blood stream from the mouth. However, it is known that bacteremia frequently occurs apart from dental procedures. Thus only a

The authors maintain that physicians and dentists should stress oral hygiene and the use of updated regimens of antibiotic prophylaxis, in order to prevent bacterial endocarditis in patients at risk. They describe current recommendations.

minority of cases of bacterial endocarditis are preventable by an antibiotic program. Although studies have indicated that prophylaxis for patients at risk is frequently omitted or given incorrectly⁷ and failures of properly given antibiotic prophylaxis have been documented,⁸ it is generally agreed that:

1. *Good dental hygiene*, especially for susceptible individuals, is very important in preventing bacterial endocarditis.

2. *Antibiotic prophylaxis* for patients at risk (see Table 1) at the time of bacteremia producing procedures (see Table 2, 4 and 5) is good medical practice. The most recent recommendations for appropriate antibiotic prophylaxis are given in Tables 3 and 6.

There are significant changes in these new recommendations. The risk of bacterial endocarditis is deemed sufficient to warrant antibiotic prophylaxis in patients with mitral valve prolapse and regurgitation, but not in those without regurgitation. Please

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note the adoption of simplified two dose schedules, and the decreased emphasis on parenteral antibiotics. These changes should make antibiotic prophylaxis for bacterial endocarditis simpler and more practical for physicians and dentists. It is important to re-emphasize that antibiotics should commence shortly before, rather than several days before the bacteremia producing procedure. This is to avoid promoting the growth of organisms resistant to the prophylactic antibiotics. Similarly, patients receiving penicillin for the prevention of rheumatic fever or for other reasons should be given one of the regimens recommended for penicillin allergic individuals.

TABLE 1
CARDIAC CONDITIONS^A

<i>Endocarditis Prophylaxis Recommended:</i>
Prosthetic cardiac valves (including biosynthetic valves)
Most congenital cardiac malformations
Surgically constructed systemic-pulmonary shunts
Rheumatic and other acquired valvular dysfunction
Idiopathic hypertrophic subaortic stenosis (IHSS)
Previous history of bacterial endocarditis
Mitral valve prolapse with regurgitation
<i>Endocarditis Prophylaxis Not Recommended:</i>
Isolated secundum atrial septal defect
Secundum atrial septal defect repaired without a patch six or more months earlier
Patent ductus arteriosus ligated and divided six or more months earlier
Postoperative coronary artery bypass graft (CABG) surgery
Mitral valve prolapse without regurgitation

^AThis table lists common conditions but is not meant to be all-inclusive.

TABLE 2
PROCEDURES FOR WHICH ENDOCARDITIS PROPHYLAXIS IS INDICATED

All dental procedures likely to induce gingival bleeding (not simple adjustment of orthodontic appliances or shedding of deciduous teeth)
Tonsillectomy and/or adenoidectomy
Surgical procedures or biopsy involving respiratory mucosa
Bronchoscopy, especially with a rigid bronchoscope^A
Incision and drainage of infected tissue
Genitourinary and gastrointestinal procedures as listed in Table 4

^AThe risk with flexible bronchoscopy is low, but the necessity for prophylaxis is not yet defined.

TABLE 4
GENITOURINARY AND GASTROINTESTINAL PROCEDURES FOR WHICH ENDOCARDITIS PROPHYLAXIS IS INDICATED

Cystoscopy
Prostatic Surgery
Urethral Catheterization (especially with infected urine)
Urinary Tract Surgery
Vaginal Hysterectomy
Gallbladder Surgery
Colonic Surgery
Esophageal Dilatation
Sclerotherapy of Esophageal Varices
Colonoscopy
Upper GI Endoscopy with Biopsy
Proctosigmoidoscopic Biopsy

TABLE 3
SUMMARY OF RECOMMENDED ANTIBIOTIC REGIMENS FOR DENTAL/RESPIRATORY TRACT PROCEDURES

<i>Standard Regimen</i>	
For dental procedures that cause gingival bleeding, and oral/respiratory tract surgery	Penicillin V 2.0g orally one hour before, then 1.0g six hours later. For patients unable to take oral medications, 2 million units of aqueous penicillin G IV or IM 30-60 minutes before a procedure and 1 million units six hours later may be substituted.
<i>Special Regimens</i>	
Parenteral regimen for use when maximal protection desired: e.g., for patients with prosthetic valves	Ampicillin 1.0-2.0g IM or IV plus gentamicin 1.5mg/kg IM or IV, one half hour before procedure, followed by 1.0g oral penicillin V six hours later. Alternatively, the parenteral regimen may be repeated once eight hours later
Oral regimen for penicillin-allergic patients	Erythromycin 1.0g orally one hour before, then 500mg six hours later
Parenteral regimen for penicillin-allergic patients	Vancomycin 1.0g IV slowly over one hour, starting one hour before. No repeat dosage is necessary

Note: Pediatric doses: Ampicillin 50 mg/kg per dose; erythromycin 20 mg/kg for first dose, then 10 mg/kg; gentamicin 2.0mg/kg per dose; penicillin V full adult dose if greater than 60 lb (27kg), one-half adult dose if less than 60 lb (27kg); aqueous penicillin G 50,000 units/kg (25,000 units/kg for follow-up); vancomycin 20 mg/kg per dose. The intervals between doses are the same as for adults. Total doses should not exceed adult doses.

TABLE 6
SUMMARY OF RECOMMENDED REGIMENS FOR GASTROINTESTINAL/GENITOURINARY PROCEDURES

<i>Standard Regimens</i>	
For genitourinary/gastrointestinal tract procedures as indicated in Tables 4 and 5	Ampicillin 2.0g IM or IV plus gentamicin 1.5 mg/kg IM or IV, given one-half to one hour before procedure. One follow-up dose may be given eight hours later
<i>Special Regimens</i>	
Oral regimen for minor or repetitive procedures in low-risk patients	Amoxicillin 3.0g orally one hour before procedure and 1.5g six hours later
Penicillin-allergic patients	Vancomycin 1.0g IV slowly over one hour, plus gentamicin 1.5 mg/kg IM or IV given one hour before procedure. May be repeated once 8-12 hours later

Note: Pediatric doses: Ampicillin 50 mg/kg per dose; gentamicin 2.0mg/kg per dose; amoxicillin 50mg/kg per dose; vancomycin 20mg/kg per dose. The intervals between doses are the same as for adults. Total doses should not exceed adult doses.

TABLE 5
GENITOURINARY AND GASTROINTESTINAL PROCEDURES
FOR WHICH PROPHYLAXIS IS INDICATED ONLY FOR
PATIENTS AT HIGHEST RISK FOR ENDOCARDITIS

Percutaneous Liver Biopsy
Upper GI Endoscopy without Biopsy
Proctosigmoidoscopy without Biopsy
Barium Enema
Uncomplicated Vaginal Delivery
Brief Bladder Catheterization with Sterile Urine
Uterine Dilatation and Curettage*
Caesarean Section*
Therapeutic Abortion*
Sterilization Procedures*
IUD Insertion or Removal*

When infection is not suspected.

Conclusion

Physicians and dentists treating patients susceptible to bacterial endocarditis should know and follow these new recommendations of the American Heart Association and the American Dental Association. They are easier to use than previous recommendations and should lessen the risk of endocarditis in these patients. Antibiotics should only commence shortly before the procedure. Patients at higher risk, such as those with prosthetic valves,

should be given parenteral antibiotics whenever possible. It is at least equally important to promote good dental hygiene in patients at risk. Lastly, because bacterial endocarditis may occur despite appropriate antibiotic prophylaxis, practitioners should have a high index of suspicion regarding unusual febrile events following dental or surgical procedures. ★★★

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Acknowledgement

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Urologic Management of the Child With Myelomeningocele

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Although considerable progress has been made in the urologic management of the child with myelomeningocele, as recently as ten years ago problems resulting from bladder dysfunction constituted the major cause of death in these children after two years of age.¹ For this reason, it is essential that the pediatric urologist be involved in the care of these patients as soon as possible after birth.

Initial Evaluation

Ideally, initial urologic evaluation should be carried out during the neonatal period. Although the majority of patients with spina bifida will have radiographically normal urinary tracts at birth, as many as 31% of these children will have demonstrable urologic abnormalities if studied during the first month.² These may be associated congenital defects (absent kidney, malrotation, horseshoe kidney, etc.) or they may be abnormalities acquired as a result of early, severe neuromuscular bladder malfunction (vesicoureteral reflux or obstructive uropathy).

This initial urologic evaluation should include a urine culture obtained by bladder catheterization, serum creatinine and electrolytes, voiding cystourethrogram (VCUG) and renal ultrasound. If the VCUG demonstrates ureteral reflux or if hydronephrosis is found on ultrasound, then an intravenous pyelogram (IVP) should be obtained. If no signif-

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Myelomeningocele probably more than any other disability requires aggressive, well-coordinated multidisciplinary management. In recognition of the fact that physicians and community programs throughout the state provide the on-going medical care, support and service to children with this disability and their families, members of the medical staff of Mississippi Children's Rehabilitation Center who also participate in the Myelomeningocele Clinic at Blake Clinic for Children (Children's Medical Program) have submitted this series of specialty articles to update the primary care physician.

icant abnormalities are demonstrated initially, then these studies should be repeated each six months until the child is two years of age, then yearly thereafter.

Although the level of the spinal cord lesion should permit prediction of the type of bladder dysfunction to be expected, the anatomic pathways are not well-defined in this disease and the level of the spinal lesion may correlate poorly with the type of neurologic bladder lesion. As a general rule, however, some degree of bladder dysfunction will ultimately be seen in about 90-95% of these children. And, in most of these, the consequences of this dysfunction will become apparent by two years of age.

Indications for Intervention

Ideally, urologic management should involve a minimal amount of therapeutic intervention. In general, the goal of the urologist is to: (1) preserve renal function and the integrity of the upper urinary tracts, (2) control or prevent urinary infection, and (3) enable the child to be continent of urine at an appropriate age.

Upper Tract Deterioration

With the appearance of hydronephrosis or ureteral reflux, one can expect deterioration of renal function to occur unless therapeutic measures are instituted.

In the child under age two, the most effective form of management of these complications is to create a temporary cutaneous vesicostomy. This allows free drainage of urine to the outside with resultant diminution of the intravesical pressure. This is usually quite effective in bringing about resolution of obstructive hydronephrosis and ureteral reflux. Care of the child with vesicostomy is simple and requires nothing more than covering the stoma with a diaper. Since children under two years of age are usually in diapers anyway, there is no need for any special appliances, etc. An alternative to this procedure would be to institute clean intermittent catheterization, but this is not well suited for the child under age two because it is technically more difficult, less effective, and potentially more traumatic due to the small size of the infant urethra.

If, however, upper tract deterioration does not begin until after age two, then vesicostomy is usually not necessary and the patient may be begun initially on a program of clean intermittent catheterization.

In the child who has a vesicostomy performed early in infancy, this is usually left until age two to three years. It is then closed and the patient is begun on a program of clean intermittent catheterization at that time.

If hydronephrosis or reflux persists after a period of vesicostomy drainage and/or regular clean intermittent catheterization, then other surgical measures may be needed. Most commonly, ureteral reimplantation will be required if reflux or ureterovesical obstruction due to detrusor hypertrophy persists.

Control of Urinary Infection

Control of infection will do much to prevent loss of renal function. Urinary tract infections are common in these children and should be treated vigorously when diagnosed.

An important initial step in the management or prevention of infection is achieved by decompression of the dilated urinary tract through vesicostomy drainage or regular clean intermittent catheterization. In spite of adequate drainage, however, many of these children will get occasional infections.

Urine for culture should *always* be obtained by catheter specimen — transurethrally in the child with an intact bladder, or through the stoma in a child with a vesicostomy.

Urine cultures should always be obtained in the child with unexplained fever, abdominal pain, vomiting or loss of appetite.

In addition to symptomatic or clinical infections, these children may also have episodes of asymptomatic bacteruria. For this reason, in the asymptomatic child, urine cultures should also be obtained at regular intervals, usually at the time of the patient's regular check-ups.

In the symptomatic child with a positive urine culture, antibiotic treatment based on bacteriologic sensitivity should be given for seven to ten days. Follow-up cultures should be obtained to document resolution of the infection.

The asymptomatic child with a positive urine culture generally should not be treated, but observation and follow-up cultures should be carried out. If several repeat cultures demonstrate the same organism, then appropriate antibiotic treatment is probably indicated.

In the child with frequent, *symptomatic* urinary infections, prophylactic antibiotics are generally necessary. These should be broad-spectrum antibiotics with minimal side effects. These drugs are usually given in a single daily dose of $\frac{1}{3}$ to $\frac{1}{2}$ the therapeutic level. Useful drugs for this purpose are ampicillin, trimethoprim-sulfamethoxazole, cefaclor, and nitrofurantoin.

The only other recommended indication for using prophylactic antibiotics is for the child with vesicoureteral reflux to prevent bacterial seeding of the upper urinary tracts.

Urinary Continence

Control of urinary incontinence becomes necessary when the child attains an age when wearing diapers becomes emotionally and socially unacceptable. Generally this is between age three and five years. It is during this period that knowledge of the specific type of neurologic bladder dysfunction is needed. This information can usually be obtained through observation of the patient's voiding pattern, the appearance of the bladder on IVP or VCUG, and measurement of post-void residual



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she's sitting out life
instead of living it**

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References: 1. Feighner JP, et al. *Psychopharmacology* 61:217-225, Mar 22, 1979. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Dixon R, Cohen J. *J Clin Psychopharmacol* 3:107-109, Apr 1983.

Limbitrol[®] ^(IV) Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady state concentrations of the tricyclic drugs. Concomitant use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt). Available in bottles of 100 and 500; Tel-E-Dose[®] packages of 100; Prescription Paks of 50.

urine. Although more accurate and specific data may be obtained through formal urodynamic evaluation, this type of testing is not routinely indicated.

The foundation of therapy for achieving urinary continence is the technique of clean intermittent bladder catheterization.³ This technique has received widespread use in the management of neurogenic bladder dysfunction during the past ten years and has allowed many of these patients to achieve socially acceptable urinary continence.

Ultimately, between 70 to 90% of patients with myelomeningocele will be suitable candidates for clean intermittent catheterization. Of these, approximately two-thirds will require catheterization for control of reflux, hydronephrosis, or urinary tract infection. The remaining one-third will be placed on catheterization for control of incontinence alone.⁴

Initially, the techniques of clean intermittent catheterization are taught to the child's parents; but in most instances, by the time the child is eight or ten years of age, the catheterization can and should be done by the patient.

In addition to intermittent catheterization, adjunctive pharmacologic therapy will be required in approximately 80% of the children being catheterized. This will consist of anticholinergic medication (oxybutynin hydrochloride or propantheline bromide) in those patients with detrusor hyperreflexia.

Additionally, if the patient has urinary sphincter incompetence, alpha-adrenergic drugs (ephedrine or pseudoephedrine hydrochloride) may be necessary.

Imipramine hydrochloride is also useful in some patients because it has both anticholinergic and alpha-adrenergic properties.

Using clean intermittent catheterization techniques and adjunctive pharmacologic therapy, approximately 80% of the children managed in this way can be expected to achieve satisfactory urinary continence and be dry for three to four hour intervals. The key to successful management is, of course, patient compliance.

In patients who are unable to follow this program or who fail to achieve dryness or have upper tract deterioration despite compliance, other measures may be necessary.

Augmentation of the bladder with intestinal segments may be necessary in some patients to increase bladder volume and lower intravesical pressure.⁵ Following this type of procedure, urinary continence may improve markedly in patients who adhere to regular intermittent catheterization programs.

Artificial urinary sphincter implantation may also be considered in a small percent of these children in whom urinary sphincter activity is nearly or com-

pletely absent.⁶ Generally, artificial urinary sphincters are not indicated until the child nears puberty. Candidates for implantation of this device must have normal or near normal upper urinary tracts. They must be compliant and physically able to operate the valve mechanism. In addition, the bladder should be of good capacity and with no detrusor hyperreflexia. And, finally, no significant residual urine should remain after bladder emptying.

Some patients with small, hyperreflexic bladders may be converted to suitable candidates for artificial sphincter implantation by prior intestinal segment bladder augmentation.

Before considering artificial sphincter implantation, these patients need complete urologic evaluation including IVP, VCUG, and cystoscopy. In addition, in this instance, complete urodynamic evaluation is essential.

Finally, if the above options for control of urinary incontinence are unsuccessful, external urinary diversion may be used as a last resort. This should be necessary in fewer than 1 to 2% of myelomeningocele patients.

The currently preferred method of external urinary diversion is the cutaneous non-refluxing sigmoid conduit. Other alternatives are the Kock continent uretero-intestinal reservoir or the uretero-ileal conduit. Each of these procedures has certain advantages and disadvantages and the decision to perform external urinary diversion should be carefully considered.

Sexual Function

As the overall management of patients with myelodysplasia has improved, the likelihood of their living to adulthood has increased markedly. Most of these children are fertile and potentially able to reproduce. The problem of impotence in the male patient has only recently been addressed, but as new developments occur in pharmacologic induction of penile erections, penile prosthetic devices, and artificial insemination techniques, more of these patients will produce offspring.

Because of this, increasing emphasis should be given to sexual and reproductive counseling for these children as they enter adolescence. Awareness of their sexuality should be increased and they should learn that they are capable of having children of their own. They should also be made aware that the likelihood of their offspring having myelodysplasia is increased 20 times above normal. For this reason, birth control is also a very appropriate subject for discussion.

These areas have been nearly completely ne-

MYELOMENINGOCELE/Continued

glected in the past and data concerning sexual development, sexual function and reproduction in this population are almost non-existent. It is certainly appropriate for the urologist to help develop and to participate in the sexual education of these patients.

In summary, recent developments in the urologic (as well as total) care of patients with myelomeningocele have significantly altered the prognosis for a longer, more satisfying life. The urologic future looks even brighter as advances in the development of bladder stimulators, nerve regeneration techniques, and more sophisticated surgical procedures are made.

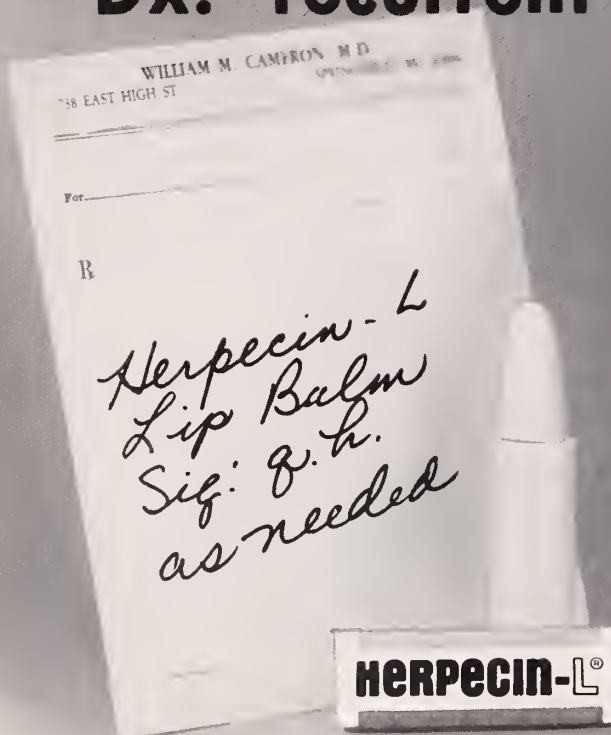
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FEW MISSISSIPPIANS have access to a single medical office with more than 30 specialists in such areas as gynecology, obstetrics, pediatrics, internal medicine, neurology, dermatology, and otorhinolaryngology.

But residents of Forrest County have available such a facility: the county health department.

According to Southeast Public Health District VIII Director Thomas Hammack, M.D., agreements with private physicians in Hattiesburg allow the Forrest County Health Department to offer a broad range of services — often to patients who otherwise could not afford such services or treatment.

“The private physicians here have a strong sense of community responsibility,” Dr. Hammack said. “They have a commitment to help indigent patients.”

“They sure aren’t making any money off these clinics,” added District VIII Administrator Charles Daughdrill. “Contracts with these physicians range from \$30 to \$35 an hour, far less than they make per hour in private practice.”

According to Daughdrill, most of Hattiesburg’s specialists contract with the Forrest County Health Department.

“For example, all three of the city’s ob/gyn groups work with the health department,” he said. “Each group provides a physician one day a week, allowing us to offer three weekly ob/gyn clinics.”

Dr. Hammack added, “Having these specialists treat our maternity patients improves the range and quality of our prenatal services and — since so many of our patients deliver at Forrest General — provides continuity of care.”

Contract specialists also strengthen the hypertension and tuberculosis control programs.

“Our hypertension patients are generally conceded to be the worst in Hattiesburg, but only one has required dialysis,” Dr. Hammack said. “Without the services of these specialists, more of our

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“... private physicians share a spirit of cooperation, and it spills over into the public health arena,” says Dr. Bennett Smith of Hattiesburg, left, a participant in the Forrest County Health Department’s public/private program for health care. He is pictured above with nurse Mary Ann Dodds, as they examine a young patient.

patients would require dialysis — a very expensive process.

“We also have an outstanding TB control program,” he said. “Our contract tuberculosis physicians are very supportive of the agency’s directly-observed therapy regimen, which was piloted in the Hattiesburg area.”

The district director added that area private and public physicians are already jointly experimenting with a new six-month TB treatment plan to replace the current nine-month regimen.

Other Forrest County Health Department clinics treat patients with neurological disorders and serious skin problems.

“We also have arrangements with local ear-nose-and-throat specialists to see indigent patients in their offices on referral from the health department,” said Daughdrill.

And while Forrest County residents clearly benefit most from these contractual services, individuals in the surrounding counties profit, too.

"The Forrest County Health Department serves as a regional center for the entire district," Daughdrill said. "Needy patients in other counties are referred to Forrest County clinics for special services they could not get in rural areas."

Hattiesburg pediatrician Bennett Smith, who has been holding twice-weekly clinics at the Forrest County Health Department for 10 years, believes use of contract specialists helps patients, the health department, and physicians.

"The patients get services they otherwise would find difficult or impossible to obtain," he said. "And private physicians often are aware of resources not available through the health department.

"The health department benefits through improved communication with private health care providers," Dr. Smith continued. "And local physicians become aware of all services the county health department offers."

He attributes Forrest County's unusually high number of contract specialists to physician attitudes and efforts of public health practitioners.

"Hattiesburg has an exceptionally close-knit medical community," Dr. Smith said. "The private physicians share a spirit of cooperation, and it spills over into the public health arena.

"And Dr. Hammack and Forrest County Medical Director Dr. Mike Palmer are such competent physicians and administrators," he added. "They have a good working relationship with the entire Hattiesburg medical community."



Dr. Geoffrey Hartwig of Hattiesburg is among private physicians who contract with the local health department in an effort to improve access to medical care for citizens. He is pictured above with a skeptical young patient and her concerned mother.

Dr. Hammack passes the compliment to the Forrest County Health Department staff.

"Use of contract specialists complicates scheduling, third party payments, and referrals and involves working with a lot of different personalities," he said. "It really taxes the nurses and clerks.

"But we have an excellent staff in the Forrest County office," Dr. Hammack continued. "Their efficiency and cooperative attitude are key factors in our attracting and keeping the services of contract specialists."

★★★

Address of the President

W. JOSEPH BURNETT, M.D.

Oxford, Mississippi

I WANT TO ADDRESS you today concerning a problem I perceive in our profession and our association. I have reminded our Board for several years and many of you on many occasions that the interest of our members has changed in the last several years! Your thrust and interest in this association has for some time been away from relying on it as a source of CME and toward the socioeconomic problems and political pressures directly affecting our profession.

This address may stray from tradition in some ways, but many of you know I don't always follow tradition. I want this morning to direct your attention specifically to *political activities* which are affecting all of us — some of which you are not going to want to hear! However, since we find politics and government so entwined with our lives these days — it's in politics and government that we find the source and the solution to many of our socioeconomic problems.

Dr. Ed Annis, a former president of the American Medical Association, told a story at a recent AMA meeting and used a rather humorous example, I thought. He said when you see all of these problems come down like DRGs, etc. you can always look under the cover (or just like looking in the lapel of your coat) and you will find a sign that says "Made in Washington." Sometimes undoubtedly we have too much government.

In this year we celebrate the bicentennial of our nation's Constitution and it seems appropriate to reflect on how we as citizens and professionals have protected and exercised our constitutional rights!

Did you know the men who worked all summer in 1787 on our constitution were college men — and in those days to enter college one had to be able to translate the first ten books of the Bible from Greek and Latin! These were very intelligent men by any standard, and thank God for their work and for our constitution! But, I wonder how they would feel about our acceptance of our responsibility to preserve liberty and our diligence to insure govern-

"We do make a difference in our own professional organization on a nationwide basis. And you can make a difference when you dedicate yourself to political involvement both locally and nationally."

ment of the people, by the people. I wonder how they would feel about:

- (1) only 48% of the registered voters in Mississippi voting in the last statewide election
- (2) only 52% of Mississippi registered voters voting in the last congressional election.

Especially how would they feel if they realized that:

- (3) only 53% of the voters all across the nation voted in the last congressional election and that this really represents only 36% of the people of voting age across the nation. (Obviously a lot of people of voting age are not even registered.)
- (4) How would they feel if they knew that we the people, with many of our problems, sent back in the last congressional elections 98% of the incumbents, *by the biggest margins in history*. You know why they have won so big — not only does:
 - (A) gerrymandering favor incumbents, and
 - (B) PAC favor incumbents, but the
 - (C) incumbents have voted themselves perquisites totaling over \$1 million a year to perpetuate themselves in office — such things as telephone, telegraph, and mailing privileges.

Are we doing our part as citizens politically in controlling government? One of the great authors of our Constitution, James Madison, in one of the most profound statements on politics ever written, said, and I quote: "In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. *A dependence on the people is, no doubt, the primary control of the government.*"

Dr. Burnett, 1986-87 president at the 119th Annual Session, June 4, 1987, in Biloxi, MS.

These intelligent men knew what had led to the fall of great nations. They knew that as the people began to *feel powerless to express their political will, as they lost interest in government, as they became absorbed in their business, in their amusements and in their individual salvations*, that great nations began to fail. Indeed they knew that many of the exact elements I just mentioned led to the fall of the *Roman Empire*.

Let's do our part as physicians, as community leaders, and as citizens to insure that government of the people, by the people, for the people shall not perish.

You say, "My, you certainly sound like a doom and gloomer." Indeed, that is not the case. I try to look for the positives but I also strive to be a realist. How does this realistically look from your perspective?

Should you be more active politically? Do you vote regularly? Where were you when MSMA conducted a reception for our state legislators? Where were you when MSMA provided an excellent political education seminar sponsored by AMPAC (except for about three or four of the doctors here today that covers about everybody else). You say, "Well, I won't make a difference. My vote, my input, my involvement really won't make a difference." And you know what? You are probably right! *Yes, I agree you are probably right.* A friend told me recently that he paid his money to the PAC and let somebody else handle politics for him. Do you believe this is the way to get things done? It's been said that "a person who says he is above politics is really saying that Democracy is beneath him." *We can make a difference!*

Look at our participation in the AMA (and I will ask Dr. Coury to contradict this if it is not also his perception). But our small AMA delegation does indeed make a difference to our national organization.

- (1) Not only are we a unified state
- (2) But our state association and its conduct of affairs for our members is exemplary.
- (3) Our PRO, our self-owned insurance company, are models.
- (4) And as Dr. Sammons has admitted, AMA depends greatly on Mississippi. After all, we've got the chairmen of the House and Senate Appropriations Committee.

Further, our entire congressional delegation is most

responsive to the interests of their doctors and the profession as a whole. We do make a difference in our own professional organization on a nationwide basis. *And you can make a difference when you dedicate yourself to political involvement both locally and nationally.*

How might we proceed from here? Your dedicated direct and indirect involvement in political activities is desperately needed. In addition, I would like to make a few proposals for our association.

- (1) I would like to propose at least one delegate from each component society function as coordinator for their district's PAC board member and recommend needs for our association's political activity;
- (2) I would like to propose that any member or spouse who actively seeks political office: city, county, state or national, be awarded a contribution by our PAC board at a level determined by the PAC board, assuming, of course, their views are compatible with those of our association;
- (3) I propose the PAC board members continue to be appointed by districts. If, however, the appointed member finds it necessary to miss more than one Pac Board meeting per year the position be reappointed;
- (4) I propose the MSMA Auxiliary be encouraged and supported by the Association to increase their political education and support activities.

What will we do? Will you join me in an attempt to climb to even higher planes of political involvement? I have worked actively with our association for over eight years and let me say here — this opportunity to serve you in this office has been one of the greatest honors and privileges in my adult life. I truly consider it to be a blessing. Thanks to you and thanks to our dedicated, often self-sacrificing staff for your support and encouragement.

Wherever needed, I will continue to work for our profession and through our association and in other capacities. Will you, during this bicentennial year of our Constitution, join me in rededicating ourselves to higher planes of political involvement — in rededicating our time — in rededicating our money.

Let us be reminded that the punishment of wise men who refuse to participate in the affairs of government is to live under the rule of unwise men!!

Let's do our part as physicians, as community leaders, and as citizens to insure that government of the people, by the people, for the people shall not perish!

God bless you all! Thank you Mr. Speaker.

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The President Speaking

Medical Care for the Indigent

W. LAMAR WEEMS, M.D.
Jackson, Mississippi

Health care is one of those basic requirements of human existence which, like food and shelter, can't gracefully be denied needy individuals by a humane society on the grounds of inability to pay. Whether the moral authority is the Old Testament, Jesus Christ, secular humanism, or something else, the obligation to aid the sick and afflicted is ubiquitous in codes of ethics. The medical profession is appropriately pledged to promote high quality health care for all people. Likewise, the mission statements of most hospitals contain similar commitments. Parenthetically, I personally don't believe that individuals have a natural right to social welfare benefits, including medical care, although legal rights to these benefits may be granted by passage of laws. However, the moral imperative for society and for the health care industry is clear: access to health care should be made available to all people regardless of ability to pay.

Providing health care for the medically needy is a societal obligation and not the responsibility of the medical profession. The AMA Voluntary Effort a few years back was a worthy project, in that a few unemployed steel and auto workers and bankrupt farmers received needed care under this program and the medical profession received favorable publicity. All physicians should provide some free health care along the way, but by no stretch of the imagination can physicians propose to assume the full burden of the care of the uninsured poor on a voluntary basis. Economic realities force hospitals and physicians to recover at least some of the losses sustained in uncompensated care from those who can pay. This Robin Hood approach to the funding of care is of questionable morality in itself when those who pay are uninformed about being robbed in behalf of those who can't.

Society has accepted the obligation to support health care for the medically indigent in principle. For instance, the President's Commission on the Health Needs of the Nation in 1952 concluded that "society has an ethical obligation to ensure equitable access to health care for all." An AMA public awareness survey in 1985 asked Mississippians, "Should government provide better health care for the poor and elderly?" Eighty percent of Mississippians answered, "yes." I have never heard a public official deny this obligation. And yet, 35-40 million Americans have no health

(Continued on page 220)

EDITORIALS

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

VOLUME XXVIII, NUMBER 8
AUGUST 1987

Sex — AIDS — Family

You will have to admit that I got your attention this time!

I observed eighteen articles on the above subjects in a recent issue of "American Medical News." This is typical of almost every medical journal, newsletter or newspaper that comes across our desks.

I noticed that the August issue of *American Health* magazine has advertised on the front page a lead article entitled "Condom Shopper's Guide." As Ed McMahon would say, "It's all you ever wanted to know about condoms . . . and more." And how do I feel about that? Well, I am the one who used to talk louder (or turn the TV down) in mixed company when the Tampax advertisements came on. All those terms we once relegated to the "boys' basement" at school are now commonplace on television and such. How about it, boys and girls? I bet you didn't like mini-skirts, either? You have got to leave a little something to the imagination.

While we are on the subject, I was reading one of those "throw aways" the other day and learned that researchers at the University of Minnesota Medical School's Human Sexuality Research Program were treating "sex addiction." I am going to hold my comments in check on this topic, but would like to mention that I agree with Dr. Ruth Westheimer's article in a recent *Clarion-Ledger* which was entitled, "There just isn't any such thing as 'sex addiction.'" (Note: I am saving all these articles and statistics just in case someone is still looking over my shoulder.)

The bottom line to all this is not that I am trying to impress you with how "well-read" I am, but how concerned I am about what I consider to be a downward trend to our mores — or maybe our social consciousness has just hit a new high.

I realize that AIDS and childhood pregnancies are abounding and pressing problems. They have forced us to do something. Rather than only treat the problems per se, can we not encourage, through our patient contacts and through social and civic organizations, a return to the family unit where values are taught in the home and not relegated to the schools and legislatures? I would enlist your support in going after the real culprit — the dissolution of the family unit.

Thank God I am a physician.

JOE JOHNSTON, M.D.
Associate Editor

LETTERS

SIRS:

All work and (almost) no play made our MSMA delegation to the recent AMA meeting anything but a dull group. Their tireless dedication and attention to detail were impressive.

I had the opportunity to observe (our delegates') early morning caucuses during which the previous day's proceedings were reviewed and plans made for that day's activities, their participation in reference committee hearings as both committee members and speakers, their long hours in the House of Delegates deciding important issues such as the new AMA policy on AIDS, and the warm camaraderie between our delegates and those from other states.

Thank you, Gentlemen, for a job well done.

STANLEY HARTNESS, M.D.
Kosciusko, MS

— Next Month in Journal MSMA —

- **Acute Metabolic Acidosis Due to Ibuprofen Overdose**
- **Radiographic Evaluation of Blowout Fractures of the Orbit**
- **Mississippi's First Pediatrician — Dr. F. Gail Riley**

THE PRESIDENT SPEAKING

(Continued from page 218)

insurance. Medicaid covers less than 40% of people below the poverty level. In Mississippi, the state charity hospitals are underfunded and substantially staffed by physicians who can't meet requirements for unrestricted licensure. Medicaid is not funded by the state to limits allowed by federal law in spite of the fact that the federal government pays 75% of the cost of this program. The University Hospital lost \$48 million in 1985-86 on uncompensated care. As a result, house service admissions are being curtailed for financial reasons, denying care to needy patients and damaging training programs which need the clinical material. Mississippi hospitals are losing nearly \$400 million a year in uncompensated care, threatening the survival of many hospitals, especially those in rural areas. All of these problems are likely to get worse as the federal government struggles to balance its budget and as hospitals and physicians are forced to compete in the marketplace.

Where does MSMA stand on this issue? On the sidelines for the most part. I reviewed our annual legislative agendas since 1980. I found that we have pushed for increased Medicaid fees during at least two legislative sessions. We have urged increased hospital reimbursement by the State Hospital Commission three times. To our credit, we supported enactment of the Limited Medically Needy Program and the Mississippi Health Services Reorganization Act, measures designed to improve services to the medically needy. By comparison, during this time we have had a running battle in the legislature with optometrists over the use of drugs. Our position is that the use of drugs by optometrists constitutes a health hazard. Maybe so, but our credibility is strained when we profess concern about the potential damage from eye drops administered by non-physicians and essentially ignore the fact that infant mortality is inordinately high in this state and that

people with cancer and high blood pressure often don't get timely treatment because they are poor.

The sidelines are not a safe place to be in this environment. Public support is an invaluable asset for the medical profession as we strive to maintain our influence in the health care system. We are losing public support partly because people are coming to believe that we are mainly motivated by greed. Meaningful advocacy of care for the medically needy (particularly if coupled with ideas about how the public can meet its responsibilities economically) would help the profession to regain the high ground in the development of public health policies generally. The appropriate role of organized medicine is to identify needs and to be the ombudsmen for those who are needy. Private sector solutions should first be sought, but private support will not be enough. Realistically, the burden is so great that it must be shared by all taxpayers. A major effort should be initiated by the Mississippi State Medical Association to influence development of public programs. The most immediate need is for all interested groups, public and private, to get organized. The formation of the Advisory Committee to the Special Legislative Study Committee on Indigent Care in 1985 was a halting step in the right direction. I was privileged to be the MSMA representative on that committee and was elected chairman by the group. A report was generated which deserves more attention from the legislature than it received. In a recent "white paper" on the subject of public health in Mississippi, Dr. Alton Cobb called for the reinstatement of the Indigent Care Study Committee. MSMA should join in that call. An intelligent, coherent approach to this problem is long overdue. As Dr. Cobb says, "Mississippi's greatest health problems are those which are aggravated by poverty and lack of access to care." MSMA must assume a leadership role in guiding the development of health care programs for the poor, because within our ranks exist the expertise and the instincts to do it right.

Patient Information Brochures/Services Available from MSMA

- "CommuniCare" Brochures
- Health Care Cost Brochures
- Patient Survey Forms
- "Changes in Health Care: What Your Family Should Know"
- AIDS Speakers Bureau

MEDICAL ORGANIZATION

Dr. McGee Elected To AMA YPS Post

Delegates to the AMA's Young Physicians Section (YPS) elected Dr. George E. McGee of Hattiesburg as chairman-elect of the section's Governing Council.

The Young Physicians Section, established by the AMA in 1986, focuses on the needs of physicians who are younger than age 40 or who are in the first five years of practice after residencies or fellowships. There are 210,000 young physicians in the country (52% of all physicians).

Dr. McGee currently is chairman of MSMA's Young Physicians Section, which was established this year at the association's 119th Annual Session. Other officers are Timothy J. Alford, M.D., chairman-elect, and Jack H. Kahlstorf, M.D., secretary-treasurer.

UMC Announces Faculty Promotions

Three University of Mississippi Medical Center faculty members reached the rank of professor in promotions announced July 1, by Norman C. Nelson, UMC vice chancellor for health affairs and medical school dean.

Dr. Nelson announced the changes in status along with 21 other faculty promotions following approval by the Board of Trustees of State Institutions of Higher Learning.

Promoted to professor in the School of Medicine were Dr. Junius G. Adams III, professor of medicine, and Dr. Geary S. Alford, professor of psychiatry and human behavior (psychology).

In the School of Dentistry, Dr. Mark L. Helpin was moved up to the rank of professor of pediatric dentistry.

(Continued on next page)

American Heart Association, Mississippi Affiliate, Honors State Physicians



Attending the 36th Annual Meeting of the American Heart Association in Mississippi were, left to right, Kent Kirchner, M.D., Cheryl Hardy, M.D., Jean Hill, J. Ed Hill, M.D., Paula Hagood and Clyde Hagood, Jr., M.D. Dr. Kirchner was named the 1986-87 Ernest G. Spivey Researcher for his project being conducted at the University of Mississippi Medical Center. Dr. Ed Hill was installed as 1987-88 president of the Mississippi Affiliate of the American Heart Association. Dr. Clyde Hagood was honored with the Bronze Distinguished Service Award at the June meeting in Diamondhead.

UMC PROMOTIONS/Continued

Dr. Adams, who earned the A.B. in 1966 at the University of North Carolina at Chapel Hill, received the M.S. in 1970 and the Ph.D. in 1971 at the University of Michigan at Ann Arbor. On the University of Illinois College of Medicine faculty from 1972-1976, he also was chief of the hemoglobin research laboratory at the Veterans Administration West Side Hospital in Chicago, and director of the hemoglobin identification laboratory at the University of Illinois Comprehensive Sickle Cell Center. In 1976, he was named chief of the hemoglobin research lab at the Veterans Administration Medical Center in Jackson and associate professor of medicine (research) and assistant professor of preventive medicine at UMC. He became assistant professor of biochemistry in 1980 and was promoted to associate professor of preventive medicine (genetics) in 1983.

Dr. Alford earned the B.A. in 1968 at Millsaps College and the M.A. in 1971 and the Ph.D. in 1972 at the University of Arizona. He did his clinical internship at UMC and completed a post-doctoral fellowship at the Baylor College of Medicine, Texas Research Institute of Mental Sciences, UMC and other training sites. A member of the Medical Center faculty since 1973, he also has served as consulting psychologist for the Mental Health Services Division of the Mississippi State Department of Health, Mississippi Bureau of Narcotics, Delta Community Mental Health and Mental Retardation Center, Jackson Civil Service Commission, City of Jackson, Mental Health Services and Alcohol Abuse and Alcoholism Program of the Department of Health. He was an instructor in psychology at Millsaps from 1972-1974 and has held positions as associate professor of psychiatry and human behavior (psychology), clinical assistant professor of family medicine, and assistant professor of pharmacology and toxicology at UMC.

Dr. Helpin, who earned the B.A. in 1968 at Duke University, earned the D.M.D. in 1972 at the University of Connecticut, where he did his dental residency. He completed postgraduate training in pedodontics at Louisiana State University in 1975. Dr. Helpin joined the UMC dental school faculty in 1975 as assistant professor of pediatric dentistry and director of the maternal and child health dental project. He now directs the pediatric dentistry clinic and is also an assistant professor of pediatrics (dentistry).

School of Medicine faculty promoted to the rank of associate professor in July included Dr. Thomas

K. Williams, Jr., in surgery, Dr. Vinod K. Anand in surgery (otolaryngology) Dr. Suman K. Das in surgery (plastic), Dr. Luther Fisher in surgery (orthopedics), Dr. James Morano in radiology, and Dr. Gaston Rodriguez in medicine.

Centerwide, Dr. John D. Porter and Dr. Lloyd Gallimore were moved up to the rank of associate professor of anatomy.

School of Medicine promotions to the rank of assistant professor were Dr. Charles G. Sherwood in surgery (ophthalmology), Dr. Susan Buttross in pediatrics, and Dr. Virginia Crawford, Dr. Danny Whitehead, and Dr. Fredrick Carlton in medicine.

Centerwide promotions to assistant professor included Dr. Norman W. Miller in microbiology, and Dr. Bret C. Allen and Dr. James A. Lee in pathology.

In the School of Dentistry, Dr. Leon Anderson was moved up to assistant professor of dentistry (general residency practice).

Maddux Receives Jacquith Award



Dr. Robert F. Maddux, Jr., right, a fellow in child psychiatry at the University of Mississippi Medical Center, received the William Jacquith Award as the outstanding senior resident in psychiatry during a ceremony at the Mississippi State Hospital. Dr. William Jacquith, seated, former director of Mississippi State Hospital and former director of the Mississippi Department of Mental Health, presented the award named in his honor. Dr. Edgar Draper, left, is chairman of the Department of Psychiatry and Human Behavior at the University of Mississippi Medical Center, and James Stubbs, standing center, is the director of the Mississippi State Hospital.

Before prescribing, see complete prescribing information in SK&F CO. literature or *PDR*. The following is a brief summary.

* WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other antihypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

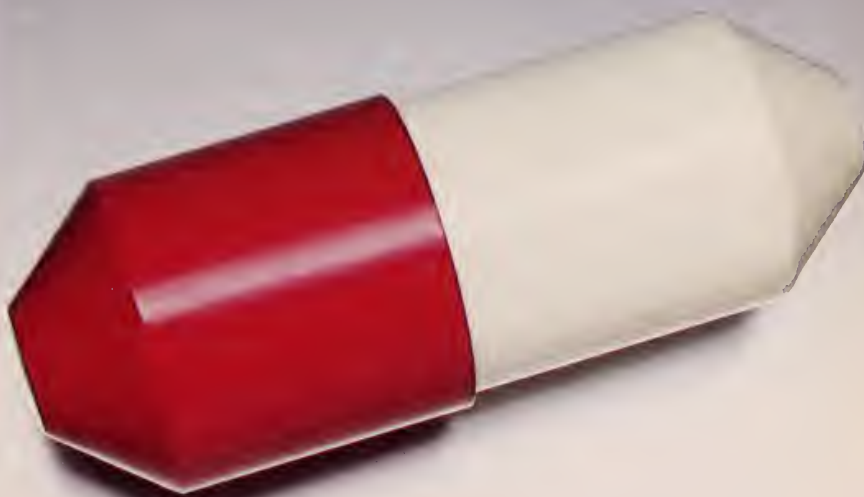
Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

BRS-DZ.L42

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Serum K^+ and BUN should be checked periodically (see Warnings and Precautions)

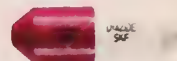


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in healed duodenal ulcers.**

FREE FUTURE

Percent of patients ulcer-free after 1 year of therapy

ZANTAC 150 mg h.s. (n = 60)	84%*
cimetidine 400 mg h.s. (n = 66)	57%

ZANTAC 150 mg h.s. (n = 243)	77%†
cimetidine 400 mg h.s. (n = 241)	63%

*P = 0.01 †P = 0.0004 % life-table estimates

All patients were permitted prn antacids for relief of pain.
Adapted from Silvis¹ and Gough²

These two trials^{1,2} used the currently recommended dosing regimen of cimetidine (400 mg h.s.) and ranitidine (150 mg h.s.). A comparison of other dosing regimens has not been studied.

The studied dosing regimens are not equivalent with respect to the degree and duration of acid suppression or suppression of nocturnal acid.

The superiority of ranitidine over cimetidine in these trials indicates that the dosing regimen currently recommended for cimetidine is less likely to be as successful in maintenance therapy.

Zantac[®] 150 h.s.
ranitidine HCl/Glaxo 150 mg tablets

Glaxo / **ROCHE** See next page for references and Brief Summary of Product Information.

ZAN375 July 1987

References: 1. Silvis SE, Griffin J, Hardin R, et al: Final report on the United States multicenter trial comparing ranitidine to cimetidine as maintenance therapy following healing of duodenal ulcer. *J Clin Gastroenterol* 1985;7(6):482-487.
2. Gough KR, Korman MG, Bardhan KD, et al: Ranitidine and cimetidine in prevention of duodenal ulcer relapse: A double-blind, randomised, multicentre, comparative trial. *Lancet* 1984;ii:659-662.

ZANTAC® 150 Tablets
(ranitidine hydrochloride)
ZANTAC® 300 Tablets
(ranitidine hydrochloride)

**BRIEF SUMMARY OF
PRODUCT INFORMATION**

The following is a brief summary only. Before prescribing, see complete prescribing information in ZANTAC® product labeling.

INDICATIONS AND USAGE: ZANTAC® is indicated in:

1. Short-term treatment of **active duodenal ulcer**. Most patients heal within four weeks.
2. **Maintenance therapy** for duodenal ulcer patients at reduced dosage after healing of acute ulcers.
3. The treatment of **pathological hypersecretory conditions** (eg, Zollinger-Ellison syndrome and systemic mastocytosis).
4. Short-term treatment of **active, benign gastric ulcer**. Most patients heal within six weeks and the usefulness of further treatment has not been demonstrated.
5. Treatment of **gastroesophageal reflux disease (GERD)**. Symptomatic relief commonly occurs within one or two weeks after starting therapy and is maintained throughout a six-week course of therapy.

In active duodenal ulcer, active, benign gastric ulcer, hypersecretory states, and GERD, concomitant antacids should be given as needed for relief of pain.

CONTRAINDICATIONS: ZANTAC® is contraindicated for patients known to have hypersensitivity to the drug.

PRECAUTIONS: Symptomatic response to ZANTAC® therapy does not preclude the presence of gastric malignancy.

Since ZANTAC is excreted primarily by the kidney, dosage should be adjusted in patients with impaired renal function (see **DOSAGE AND ADMINISTRATION**). Caution should be observed in patients with hepatic dysfunction since ZANTAC is metabolized in the liver.

False-positive tests for urine protein with Multistix® may occur during ZANTAC therapy, and therefore testing with sulfasalicylic acid is recommended.

Although recommended doses of ZANTAC do not inhibit the action of cytochrome P-450 enzymes in the liver, there have been isolated reports of drug interactions which suggest that ZANTAC may affect the bioavailability of certain drugs by some mechanism as yet unidentified (eg, a pH-dependent effect on absorption or a change in volume of distribution).

Lack of experience to date precludes recommending ZANTAC for use in children or pregnant patients. Since ZANTAC is secreted in human milk, caution should be exercised when administered to a nursing mother.

ADVERSE REACTIONS: Headache, sometimes severe, seems to be related to ZANTAC® administration. Constipation, diarrhea, nausea/vomiting, and abdominal discomfort/pain have been reported. There have been rare reports of malaise, dizziness, somnolence, insomnia, vertigo, tachycardia, bradycardia, premature ventricular beats, and arthralgias. Rare cases of reversible mental confusion, agitation, depression, and hallucinations have been reported, predominantly in severely ill elderly patients.

In normal volunteers, SGPT values were increased to at least twice the pretreatment levels in 6 of 12 subjects receiving 100 mg qid IV for seven days, and in 4 of 24 subjects receiving 50 mg qid for five days. With oral administration there have been occasional reports of reversible hepatitis, hepatocellular or hepatocanalicular or mixed, with or without jaundice.

There have been rare reports of reversible leukopenia, granulocytopenia, thrombocytopenia, and pancytopenia.

Although controlled studies have shown no antiandrogenic activity, occasional cases of gynecomastia, impotence, and loss of libido have been reported in male patients receiving ZANTAC, but the incidence did not differ from that in the general population.

Incidents of rash, including rare cases suggestive of mild erythema multiforme, and, rarely, alopecia, have been reported, as well as rare cases of hypersensitivity reactions (eg, bronchospasm, fever, rash, eosinophilia) and small increases in serum creatinine.

OVERDOSAGE: Information concerning possible overdosage and its treatment appears in the full prescribing information.

DOSAGE AND ADMINISTRATION: Active Duodenal Ulcer: The current recommended adult oral dosage is 150 mg twice daily. An alternate dosage of 300 mg once daily at bedtime can be used for patients in whom dosing convenience is important. The advantages of one treatment regimen compared to the other in a particular patient population have yet to be demonstrated.

Maintenance Therapy: The current recommended adult oral dosage is 150 mg at bedtime.

Pathological Hypersecretory Conditions (such as Zollinger-Ellison Syndrome): The current recommended adult oral dosage is 150 mg twice a day. In some patients it may be necessary to administer ZANTAC 150-mg doses more frequently. Doses should be adjusted to individual patient needs, and should continue as long as clinically indicated. Doses up to 6 g/day have been employed in patients with severe disease.

Benign Gastric Ulcer: The current recommended adult oral dosage is 150 mg twice a day.

GERD: The current recommended adult oral dosage is 150 mg twice a day.

Dosage Adjustment for Patients with Impaired Renal Function: On the basis of experience with a group of subjects with severely impaired renal function treated with ZANTAC, the recommended dosage in patients with a creatinine clearance less than 50 ml/min is 150 mg every 24 hours. Should the patient's condition require, the frequency of dosing may be increased to every 12 hours or even further with caution. Hemodialysis reduces the level of circulating ranitidine. Ideally, the dosage schedule should be adjusted so that the timing of a scheduled dose coincides with the end of hemodialysis.

HOW SUPPLIED: ZANTAC® 300 Tablets (ranitidine hydrochloride equivalent to 300 mg of ranitidine) are yellow, capsule-shaped tablets embossed with "ZANTAC 300" on one side and "Glaxo" on the other. They are available in bottles of 30 (NDC 0173-0393-40) and unit dose packs of 100 tablets (NDC 0173-0393-47).

ZANTAC® 150 Tablets (ranitidine hydrochloride equivalent to 150 mg of ranitidine) are white tablets embossed with "ZANTAC 150" on one side and "Glaxo" on the other. They are available in bottles of 60 tablets (NDC 0173-0344-42) and unit dose packs of 100 tablets (NDC 0173-0344-47).

Store between 15° and 30° C (59° and 86° F) in a dry place. Protect from light. Replace cap securely after each opening.

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October 1986

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Faculty Appointments at Medical Center

Twenty-six new faculty have been appointed to the Schools of Medicine, Dentistry, and Health Related Professions at the University of Mississippi Medical Center for the coming academic session.

Dr. Norman C. Nelson, UMC vice chancellor for health affairs, announced the appointments following approval by the Board of Trustees of State Institutions for Higher Learning.

School of Medicine appointments include Dr. Edwin G. Brown, professor pediatrics and director of the Division of Newborn Medicine; Dr. Martin L. Dalton, Jr., professor of surgery; Dr. George W. Moll, Jr., associate professor of pediatrics and director of the Division of Pediatric Endocrinology; Dr. Michael E. Andrew, assistant professor of preventive medicine; Benjamin C. Thompson, assistant professor of radiology; Dr. Bruce E. Atkinson, Dr. William Marcus Meeks, Jr., and Dr. Bruce Roberts, assistant professors of medicine; Dr. Ralph H. Didlake, assistant professor of surgery; and Dr. Francis J. Eicke, assistant professor of family medicine.

Named instructors in the medical school were Dr. Linwood R. Sprueill and Dr. Bert A. Welch III in anesthesiology; Dr. Diane K. Beebe in family medicine; Dr. Anne L. Bridges in pediatrics; Dr. Harriette L. Hampton in obstetrics-gynecology; Dr. Marvin P. Meadors III and Dr. William E. Russell in medicine; Dr. Eijiro Ohmoto in medicine (research); Dr. Lawrence H. Nabors in surgery; and Dr. James S. A. Neill in pathology.

In the School of Dentistry, Dr. Joseph S. Gian-santi was named assistant dean for clinical programs and professors of diagnostic sciences; Dr. J. Perry McGinnis, Jr., assistant dean for academic programs and professor of diagnostic sciences; Dr. Dana A. McNeir, instructor in oral and maxillofacial surgery; and Dr. Acie Whitlock, instructor in endodontics.

William D. Woodall was named instructor in physical therapy in the School of Health Related Professions.

Dr. Dalton earned the B.S. in 1953 at Auburn University and the M.D. in 1957 at the University of Alabama School of Medicine in Birmingham. He did his internship at Methodist Hospital in Birmingham with surgical residencies at UMC. Dr. Dalton has held faculty positions at the University of Texas Southwestern Medical School of Dallas and Texas Tech University School of Medicine in Lubbock, where he was chairman of the Division of Thoracic Surgery and the Division of Cardio-

vascular Surgery. He also served as chief of the Thoracic Surgery Section of the Division of Clinical Surgery at Walter Reed Army Institute of Research in Washington, D.C., as a captain in the U.S. Army Reserve.

Dr. Brown, a 1959 graduate of Haverford College, earned the M.D. in 1963 at Temple University Medical School. He did his internship and residency in pediatrics at the U.S. Naval Hospital, followed by a fellowship in neonatal/perinatal medicine at Case Western Reserve University at Cleveland Metropolitan General Hospital. He also served on the Case Western faculty from 1971-1974. In active duty with the U.S. Navy from 1963-1971, he served in the U.S. Naval Reserve from 1970-1978 as lieutenant commander. He joined the faculty at the Mount Sinai School of Medicine of the City University of New York in 1974. He was professor of pediatrics and director of the newborn services at the Mount Sinai Hospital at the time of his UMC appointment.

Dr. Moll earned the B.S. in 1969 at Carleton College and the Ph.D. in 1975 and the M.D. in 1977 at the University of Chicago. He did his residency in pediatrics at Mott Children's Hospital, followed by a fellowship in pediatrics at endocrinology at Wyler Children's Hospital in Chicago. He has held faculty appointments at the University of Chicago from 1981-1985 as assistant professor of pediatrics (endocrinology) and at Emory University School of Medicine, as assistant professor of pediatrics (endocrinology) from 1985 until his UMC appointment.

Dr. Andrew earned the associate degree in 1976 at Casper Community College and the B.S. in 1978, the M.S. in 1981 and the Ph.D. in 1983 at the University of Wyoming. He has been a consultant to the University of Wyoming and the L. E. Borman, Inc., at Laramie, Wyoming, and has served as a research statistician in the U.S. Army Corps of Engineers Waterways Experiment Station at Vicksburg since 1983.

Thompson received the B.S. in 1979 at West Virginia Wesleyan College and the M.S. in 1980 at the Georgia Institute of Technology, where he was a graduate research assistant in the School of Nuclear Engineering from 1979-1980. He worked as a research scientist with Battelle Pacific Northwest Laboratory at Richland, Washington from 1980-1982, and had been a radiological engineer with Bechtel National, Inc., at Oak Ridge, Tennessee since 1982.

Dr. Atkinson earned the B.S. in 1968 at Ole Miss in Oxford, and the M.D. in 1971 at UMC. He did

UMC FACULTY/Continued

his internship at Parkland Memorial Hospital and an internal medicine residency and fellowship in cardiology at UMC prior to his Medical Center appointment. He was in private practice in Tupelo from 1979-1980, and at Amory from 1975-1979 and from 1980-1985.

Dr. Meeks, a 1978 graduate of Mississippi State University, earned the M.D. in 1982 at UMC. He completed his residency in internal medicine in 1986 at the Medical College of Virginia. He was an instructor in general internal medicine and primary care at the McGuire Veterans Administration Medical Center and the Medical College of Virginia at the time of his appointment at UMC.

Dr. Roberts, who has been an emergency physician with the Mississippi Emergency Association since 1981, earned the B.S. in 1976 at Belhaven College and the M.D. in 1980 at UMC. He completed his internship in 1981 at UMC.

Dr. Didlake earned the B.S. in 1975 at Ole Miss, and the M.D. in 1979 at the Medical Center in Jackson. He completed a residency in general surgery and a fellowship in transplantation research at UMC, and has been a fellow in immunology and organ transplantation at the University of Texas Health Science Center since 1985.

Dr. Eicke, who has been associate professor of psychology and coordinator of counseling and educational psychology at Ole Miss since 1984, earned the A.B. in 1961 at Dartmouth College, the M.Ed. in 1968 at Tulane University and the Ed.D. in 1971 at the University of Alabama, where he was instructor in counseling and guidance from 1968-1971. He has been visiting assistant professor of guidance and educational psychology at Florence State University until his appointment to the Ole Miss Faculty in 1972 as assistant professor of guidance and educational psychology. He was named associate professor in 1977.

Dr. Sprueill earned the B.S. in 1977 at Norfolk State College and the M.D. in 1981 at Meharry Medical College. He did his internship at Wayne State University Affiliate Hospitals and a residency in anesthesiology at the Medical Center. He was on the medical staff of the Hinds Comprehensive Health Center in Jackson from 1982-1985.

Dr. Welch earned the B.A. in 1980 at Ole Miss and the M.D. in 1984 at UMC. He took his internship at East Carolina University Pitt County Memorial Hospital and his residency at UMC.

Dr. Beebe, a 1980 graduate of Ole Miss, earned the M.D. in 1984 at UMC, where she did her res-

idency in family medicine. She worked as an EKG technician at the University Hospital from 1981-1982.

Dr. Bridges earned the B.A. in 1980 at Ole Miss and the M.D. in 1984 at UMC. She took her internship and residency in pediatrics at the Medical Center.

Dr. Hampton, a 1979 graduate of East Tennessee State University, earned the M.D. in 1983 at the university's College of Medicine. She took her internship and residency in obstetric-gynecology at UMC.

Dr. Meadors earned the B.S. in 1979 at Washington and Lee University and the M.D. in 1984 at UMC, where he did his residency in medicine.

Dr. Russell earned the B.S. in 1980 at Mississippi State University and the M.D. in 1984 at the Medical Center in Jackson. He also did internship and residency in medicine at UMC.

Dr. Ohmoto, who earned the M.D. in 1979 at Yamagata University Medical School, took residency training at Tamano Mitsui Hospital and Sumi Tomo Bessi Hospital. He has been a trainee in hematology and oncology at Okayama University Medical School since 1981.

Dr. Nabors earned the B.S. in 1973 at Davidson College and the M.D. in 1977 at Bowman Gray School of Medicine. He took his internship at the Madigan Army Medical Center and his residency in general surgery at the North Carolina Baptist Hospital and Bowman Gray. He was a captain in the U.S. Army Medical Corps at Fort Rucker, Alabama, from 1972-1982, and was in private practice in Statesville, North Carolina. He did a trauma fellowship at Carraway Methodist Medical Center before his UMC appointment.

Dr. Neill attended the University of Mississippi and earned the M.D. in 1978 at UMC. He took his internship and residency in family medicine at the Eugene Talmadge Memorial Hospital at the Medical College of Georgia, followed by a residency in pathology at UMC which he began in 1984. He has been on the medical staff of the Mississippi Emergency Association in McComb and Hattiesburg, with Spectrum Emergency, Inc., and with the Cleveland Clinic in Cleveland, Mississippi.

Dr. Giasanti attended Utica College of Syracuse University and earned the D.M.D. in 1958 at Tufts University School of Dental Medicine. He earned the M.S.D. in 1969 at Emory University School of Dentistry, where he was a fellow there and at the Atlanta Veterans Hospital. A sergeant in the U.S. Marine Corps from 1948-1952, he has held faculty appointments at Emory University School of Den-

tistry, University of Kentucky College of Dentistry, University of Kentucky at Lexington, and the University of Detroit, where he was professor of pathology, professor of oral diagnosis, director of screening and emergency dentistry for the Minimal Care Clinic, and director of clinical affairs before his appointment to the Medical Center.

Dr. McGinnis earned the D.M.D. in 1959 at the University of Tennessee, where he took a fellowship in pathology and earned the M.S. in 1974. He was a staff dentist with the U.S. Army Dental Corps from 1959-1961, and has been Colonel since 1961. In private practice in Knoxville, Tennessee, from 1961-1963, he was on the University of Tennessee faculty 1967-1977. He joined the Oral Roberts University faculty in 1977 and was professor of pathology before his UMC appointment.

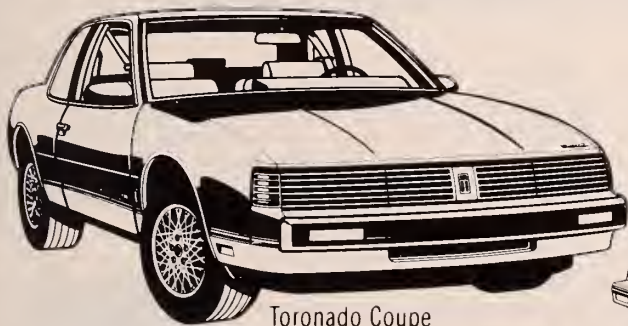
Dr. McNeir earned the B.S. in 1981 at Carroll College and the D.D.S. in 1985 at Marquette University School of Dentistry. He did his residency in

dentistry at UMC, followed by a fellowship in dental anesthesiology at Montefiore Medical Center in Bronx, New York.

Dr. Whitlock, a 1977 graduate of Mississippi State University earned the D.M.D. in 1986 at UMC, where he took his dental residency. He was a laboratory technologist with the Mississippi State Board of Health from 1977-1981.

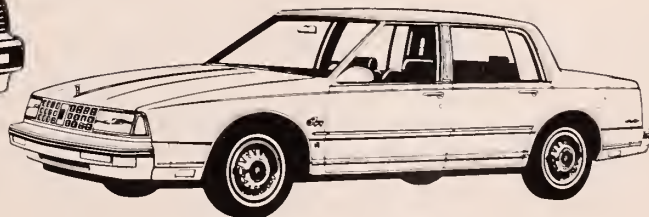
Woodall attended Millsaps College and earned the B.S. in 1981 at Ole Miss. He received the M.Ed. in 1983 from Cleveland State University. He was a physical therapist and athletic trainer at Western Reserve Therapist, Inc., in Cleveland, Ohio, from 1981-1983, and served on the physical therapy staff and as clinical coordinator at the Education, Physical and Athletic Rehabilitation Clinic, Inc., in San Jose, California, from 1983-1986. Prior to coming to the Medical Center, he was supervisor of outpatient orthopedic and sports physical therapy at El Camino Hospital at Mountain View, California.

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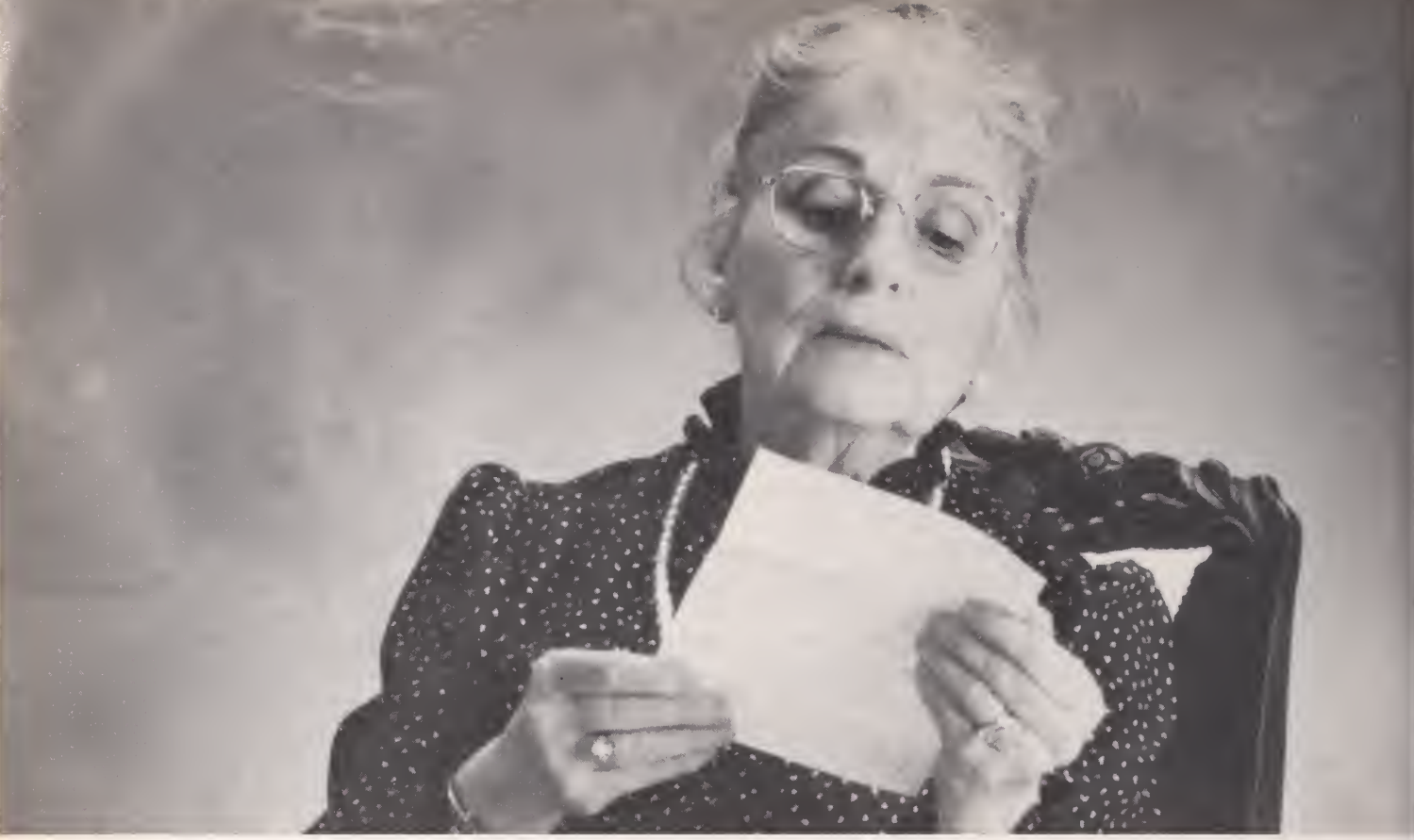
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PERSONALS

HOLLAND ADDISON of Jackson was speaker at a recent HealthLine/St. Dominic's forum.

JERRY R. ADKINS of Biloxi has been re-elected to the board of directors of Blue Cross and Blue Shield of Mississippi.

JAMES R. BECKHAM has associated with Gamble Brothers & Archer Clinic of Greenville for the practice of obstetrics and gynecology.

BOYD P. BENEFIELD has associated with Benefield Clinic of Gulfport for the practice of internal medicine and critical care.

SARAH BROOM of Jackson was the focus of a feature article in the *Jackson Daily News* which described her volunteer work as coordinator for free medical clinics for the Community Stewpot and the Learning Center.

THAIS EMILY BROWN of Jackson announces the relocation of her office to the Ridgeland Family Medical Center (MICHAEL O. STODARD), 415 Highway 51 South in Ridgeland.

C. RON CANNON of Jackson was inducted into the American Society for Head and Neck Surgery at the society's meeting in Denver, Colorado.

WILLIAM A. CAUSEY of Jackson spoke on "Christian Compassion in the Treatment of AIDS Patients" at a seminar sponsored by Christian Medical Society and Belhaven College.

DAVID CLARK of Hattiesburg lectured on sexual disorders at a recent meeting of the Laurel Lions Club.

WALTER N. COSBY announces the opening of his office for the practice of otolaryngology and head, neck, and facial plastic surgery at 425 Hospital Drive in Columbus.

RALPH J. CRISS of Coffeeville was honored by his community for 50 years of service as a physician.

JAMES CROSTHWAIT, QUINTON DICKERSON, and JAMES C. HAYS of Jackson have established the Dr. JEFFERSON HOLLINGSWORTH Memorial Endowment to assist pre-medical students at the University of Mississippi.

ROBERT DALE of Tupelo recently received the North Mississippi Medical Center's Physician of the Year Award.

RALPH DUNN of Jackson lectured on AIDS at a meeting of the Association of Surgical Technologists.

STANLEY R. EASTERLING has associated with The Street Clinic in Vicksburg for the practice of family medicine.

JAMES V. FERGUSON of Greenwood has been appointed to the University of Mississippi Alumni Association board of directors.

TOMAS R. FLORES was named Doctor of the Year by the Joppa Shrine Temple of Gulfport, in appreciation of his charity work to benefit crippled children.

EDWARD K. GORE of Houston was speaker at a Drug Awareness Forum sponsored by Houston Community Hospital and Houston Public School System.

JOHN GOUDELOCK of New Albany spoke on AIDS at a recent Kiwanis Club meeting.

JOHN N. HARRINGTON of Columbus announces his retirement from the practice of obstetrics and gynecology.

MARTIN HERMAN joined Tupelo's North Mississippi Medical Center Emergency Room staff last month.

KENNETH HINES of Greenwood was a panel member at a recent public forum on AIDS.

JAMES L. HOLZHAUER announces the opening of his practice of obstetrics and gynecology at 201 Jordan Avenue in West Point.

DONALD HOPKINS of Gulfport spoke on breast disease at an educational program sponsored by AMI Garden Park Hospital.

FREDERICK J. HUNTER of Columbus has been certified as a diplomate of the American Board of Obstetrics and Gynecology.

HERBERT LANGFORD of UMC was program moderator for the National Conference on High Blood Pressure Control in Las Vegas.

TOM LOUIS of Jackson was elected president-elect of the La.-Miss. O & O Society. Other officers include WILSON E. MOAK of Jackson, secretary-treasurer, and BEN MCCARTY of Jackson, councilor.

JOHN D. MCELWEY announces the re-opening of his office for the practice of family medicine in the clinic of Calhoun County Community Hospital.

JOHN J. MCGRAW announces the opening of Brookhaven Orthopaedic Clinic, 425 Highway 51 North in Brookhaven.

PERSONALS/Continued

LYNN B. McMAHAN has been selected to lecture to the American Society of Cataract Surgeons at its meeting in Orlando, Florida.

BRENDAN MILES of Columbus has been elected president of the Northeast Mississippi Radiological Society, which held its first meeting recently in Tupelo.

JASPER D. MOORE announces the opening of his office for the practice of general surgery and family practice in the clinic of Calhoun County Community Hospital.

MAL G. MORGAN of Natchez was recently re-elected to the board of directors of Blue Cross and Blue Shield of Mississippi.

PAUL E. MINK of Kosciusko announces his retirement from the practice of family medicine.

CHARLES PARKMAN of Hattiesburg was recently re-elected to the post of second vice president of the Mississippi Lung Association. He also spoke at a seminar in Hattiesburg on "Smoking in the Workplace: The Financial, Medical and Social Implications."

GEORGE PATTON of Jackson was speaker at a recent HealthLine/St. Dominic's forum.

WAYNE PITRIE of Vicksburg spoke on skin cancer at a meeting of the Vicksburg Rotary Club.

SESHADRI RAJU of UMC was a participant on the program of the International Venous Workshop in Larnaca, Cyprus; presented a paper at the joint meeting of the International Society for Cardiovascular Surgery and the Society for Vascular Surgery in Toronto, Canada; and was on the faculty for a continuing education course in Atlanta on venous disease.

E. T. RIEMANN, JR. of Biloxi announces his retirement from the active practice of family medicine.

RANDOLPH ROSS of Hattiesburg lectured on sexual disorders at a meeting of the Laurel Lions Club.

FLETCHER SHROCK announces the opening of his practice of family medicine at 110 Howard Drive in Durant.

G. BOYD SHAW of Jackson was elected first vice president of the Mississippi Lung Association. He also is MLA's representative to the American Lung Association's Board of Directors.

CLIFFORD A. SEYLER of Pascagoula made a presentation on school health education to the Ocean Springs School Board.

ROBERT SMITH of UMC presented papers at the Cerebral Vasospasm Research Conference in Charlottesville, Virginia, and was a board examiner for the American Board of Neurosurgery in Augusta, Georgia.

DAVID THOMAS of UMC spoke at the Joint Conference on Aging in Biloxi.

ED THOMPSON of Jackson was speaker at a seminar on AIDS sponsored by the Christian Medical Society and Belhaven College.

FRANK M. TILTON announces the opening of his office for the practice of neurology in Greenville.

MICHAEL WILENSKY announces the opening of his office for the practice of neurology at 908 6th Avenue in Picayune.

DAVID WILLIAMS has opened his practice of obstetrics and gynecology at Women's Clinic in New Albany.

MARION J. WOLFE of Bay St. Louis was honored recently when the Hancock Medical Center dedicated the new nursery in his name.

POSTGRADUATE CALENDAR

August

OPHTHALMOLOGY UPDATE 1987

Aug. 15, 1987

Ramada Renaissance Hotel, Jackson

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Aug. 20-21, 1987

University Medical Center

For more information or a program brochure, contact the University of Mississippi Medical Center Division of Continuing Health Professional Education, 2500 North State Street, Jackson, Mississippi 39216-4505; or call (601) 984-1300.

DEATHS

ABERNATHY, LYNN D., Jackson. Born Aug. 23, 1913; M.D., University of Tennessee College of Medicine, Memphis, 1936; interned, John Gaston Hospital, Memphis, one year; ophthalmology residency, Louisville General Hospital, Louisville, KY, 1941-42 and Tulane University, New Orleans, 1946-47; died June 21, 1987, age 73.

BOUCHILLON, C. D., Laurel. Born West Point, MS, May 3, 1923; M.D., University of Tennessee College of Medicine, Memphis, 1946; interned, Shreveport Charity Hospital, Shreveport, LA, one year; radiology residency, Kennedy General Hospital and John Gaston Hospital, Memphis, 1953-56; died April 7, 1987, age 63.

MITCHELL, CHARLES B., JR., Meridian. Born State College, MS, March 30, 1918; M.D., Tulane University School of Medicine, New Orleans, 1942; interned, Southern Baptist Hospital, New Orleans, one year; pathology residency, same, 1946-68; pathology residency, John Gaston Hospital, Memphis, 1948-50; died April 12, 1987, age 69.

OOSTERHOUDT, JAMES J., Lexington. Born Jacksonville, FL, Jan. 16, 1932; M.D., Emory University School of Medicine, Atlanta, 1960; interned and general surgery residency, same, 1960-65; died May 31, 1987, age 55.

REID, LEE R., Jackson. Born May 25, 1907; M.D., University of Pennsylvania School of Medicine, Philadelphia, 1933; interned, Lankenau Hospital, Philadelphia, PA, one year; thoracic surgery residency, New Haven, CN; died May 16, 1987, age 79.

NEW MEMBERS

AYCOCK, THOMAS J., Columbus. Born Durham, NC, Oct. 10, 1946; M.D. University of Alabama School of Medicine, Birmingham, 1981; interned, one year, U.S. Air Force Regional Hospital, Eglin AFB, FL; elected by Prairie Medical Society.

BECKHAM, JAMES RAY, Greenville. Born Greenville, MS, Sept. 26, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and ob-gyn residency, Naval Hospital, San Diego, CA, 1980-84; elected by Delta Medical Society.

BERRYHILL, GUS DAVIS, JR., Clarksdale. Born

Dublin, MS, Dec. 31, 1946; M.D., University of Mississippi School of Medicine, Jackson, 1974; interned and internal medicine residency, University Medical Center, Jackson, 1974-77; elected by Clarksdale and Six Counties Medical Society.

CLEMMONS, REBECCA L., Brandon. Born Savannah, GA, May 13, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned Baptist Hospital, Memphis, one year; pediatric residency, University Medical Center, Jackson, MS, 1982-85; elected by Central Medical Society.

FRASER, LIONEL B., JR., Jackson. Born Jackson, MS, March 4, 1944; M.D., University of Michigan Medical School, Ann Arbor, 1977; interned and urological surgery residency, Harvard Surgical Service, Boston, MA, 1977-83; elected by Central Medical Society.

GEE, PETER E., Jackson. Born Greenwood, MA, March 17, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and one year surgery residency, Vanderbilt University Hospital, Nashville, 1980-82; plastic surgery residency, Massachusetts General Hospital, Boston, 1982-86 and six months, Shriners Burn Hospital, Boston, MA; elected by Central Medical Society.

GRAY, ROBERT L., SR., Batesville. Born Batesville, MS, Sept. 30, 1937; M.D., University of Tennessee College of Medicine, Memphis, 1968; interned Lakeland General Hospital, Lakeland, FL, one year; radiology residency, University of Tennessee, Memphis, 1986-72; elected by North Mississippi Medical Society.

HARRIS, JOE TANNER, Oxford. Born Tupelo, MS, Sept. 18, 1947; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and pediatric residency, 1983-86; elected by North Mississippi Medical Society.

HAYNE, STEVEN T., Brandon. Born Los Angeles, Aug. 30, 1941; M.D., Brown University of Biological-Medical Sciences, Providence, RI, 1976; interned and pathology residency, Le Herman Army Medical Center, San Francisco, 1976-1980; elected by Central Medical Society.

NOBLOCH, RONALD P., Jackson. Born Lafayette, LA, Jan. 16, 1952; M.D., Louisiana State University School of Medicine, Shreveport, 1977; interned, general surgery and urological surgery, University Medical Center, Jackson, MS, 1977-1982; elected by Central Medical Society.

NEW MEMBERS/Continued

LATIMER, ROBERT A., JR., Columbus. Born Washington, DC, May 11, 1955; M.D., Georgetown University School of Medicine, Washington, DC, 1982; interned and family practice residency, David Grant Medical Center, Travis AFB, CA, 1982-85; elected by Prairie Medical Society.

LAY, A. KEITH, JR., Bay Springs. Born Clarksdale, MS, Jan. 15, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University Medical Center, Jackson, 1981-84; elected by South Mississippi Medical Society.

LOVELACE, MICHAEL H., Oxford. Born Memphis, Dec. 22, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and surgery residency, University of Tennessee Medical Center, Memphis, 1980-1984; elected by North Mississippi Medical Society.

PHYSICIANS NEEDED

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

NAUSE, CHARLES L., JR., Sumner. Born Memphis, July 27, 1953; D.O., Kansas City College of Osteopathic Medicine, Kansas City, MO, 1983; interned, Jacksonville General Hospital, Jacksonville, FL, one year; family practice residency, St. Vincent Medical Center, Jacksonville, 1984-86; elected by Clarksdale and Six Counties Medical Society.

NUNNERY, PHILLIP H., Jackson. Born McComb, MS, Oct. 20, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and surgery residency, University of Miami Medical Center, Miami, FL, 1978-1980; surgery residency, Boston University, Boston, MA, 1980-83; plastic surgery residency, University of Miami, FL, 1985-87; elected by Central Medical Society.

OVERBECK, DANIEL T., Gulfport. Born Springfield, PA, April 23, 1954; M.D., Hahnemann Medical College of Philadelphia, PA, 1981; interned and medicine residency, University of Southern California, Los Angeles, 1981-84; elected by Coast Counties Medical Society.

PACKER, N. DOUGLAS, Jackson. Born Cleveland, MS, Sept. 19, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned and anesthesiology residency, University Medical Center, Jackson, 1983-86; elected by Central Medical Society.

SAFLEY, WILLIAM L., Gulfport. Born Jackson, MS, Nov. 13, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1974; interned and surgery residency, University Medical Center, Jackson, 1974-79; thoracic surgery residency, University of Texas, Galveston, 1979-81; elected by Coast Counties Medical Society.

WAITES, THAD F., Hattiesburg. Born Quitman, MS, Feb. 1, 1945; M.D., University of Mississippi School of Medicine, Jackson, 1970; interned, one year, Grady Hospital, Atlanta, GA; internal medicine residency, University of Colorado, Denver, 1971-74; cardiology residency, Emory University, Atlanta, 1974-75; elected by South Mississippi Medical Society.

WHITE, MICHAEL A., Columbus. Born Sharpsville, PA, July 23, 1949; M.D., University of California College of Medicine, Irvine, 1979; interned and anesthesiology residency, Emory University Hospital, Atlanta, 1979-82; elected by Prairie Medical Society.

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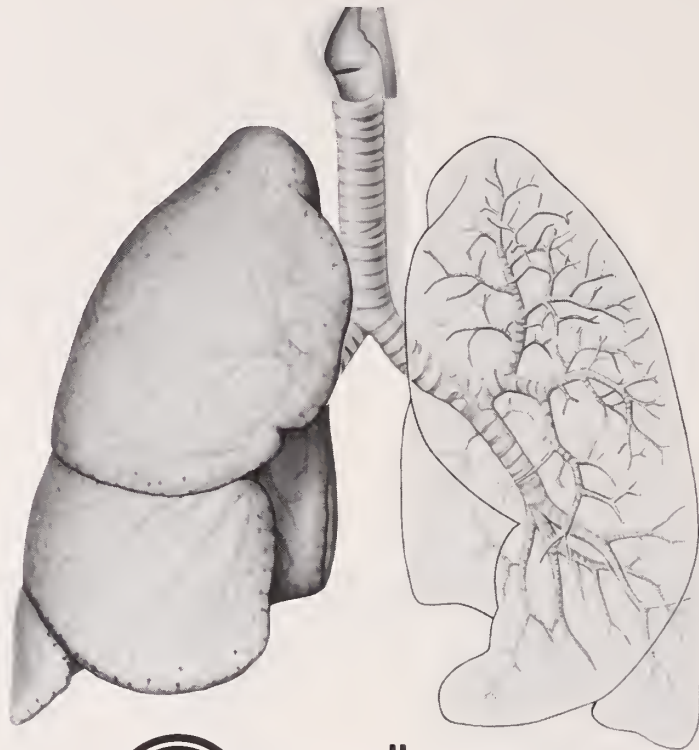
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Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Summary. Consult the package literature for prescribing information.

Indications: Lower respiratory infections, including pneumonia, caused by susceptible strains of *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A β -hemolytic streptococci).

Contraindication:
Known allergy to cephalosporins.

Warnings:

CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients. Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever): 1.5%; usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness,

insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.

- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis: elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistix® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly).

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Medico-Legal Brief

Court Denies Request to Withdraw Feeding Tube

A wife's petition to withdraw a feeding tube from her husband, who was in a chronic vegetative state, was denied by a New York trial court.

According to a neurosurgeon, the patient, a 33-year-old man, was in a state of chronic vegetation with neocortical death and no hope for improvement. This condition followed cardiac arrest that occurred during an operation.

The patient was not attached to a respirator, but received nutrition and hydration through a tube connected directly to his stomach. He could live indefinitely as long as such nutrition and hydration were maintained. The opinion of the neurosurgeon was corroborated by two physicians retained by a court-appointed legal guardian.

The patient's wife sought an order authorizing her to direct the hospital where her husband was a patient or some other institution to remove the feeding tube, stop all feeding and nutrition, and stop all treatment. At a hearing, the wife and other relatives and friends testified that the patient had previously remarked that he would not want his life prolonged by artificial means if he were in a chronic vegetative

state with no hope of recovery. The court said that such testimony satisfied the "clear and convincing standard" established by the highest state court in such cases.

The court said that there was state authority for permitting withdrawal of a respirator, but only where there was clear and convincing medical proof of irreversible brain damage without hope of restoration or improvement and evidence of the patient's wishes, as well as agreement of the family. The court pointed out that most such applications for removal of life-support devices were on behalf of older, terminally ill patients. None of the three physicians who testified in the present case described the patient as terminally ill. He could exist indefinitely in the vegetative state, awaiting some future medical breakthrough, unlike an aged and terminally ill patient.

The court said that although it was favorably disposed to granting the wife's request, the legal authority to do so was unclear. The features distinguishing the present case from those of terminally ill, older patients caused the court to deny the wife's petition. The court urged an appeal of the case.—*Delio on Behalf of Delio v. Westchester County Medical Center*, 510 N.Y.S.2d 415 (N.Y.Sup.Ct., Dec. 5, 1986)

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INDICATIONS AND USAGE: Edema associated with congestive heart failure, hepatic and renal disease, including the nephrotic syndrome.

Almost equal diuretic response occurs after oral and parenteral administration of Bumex. If impaired gastrointestinal absorption is suspected or oral administration is not practical, Bumex should be given by the intramuscular or intravenous route.

Successful treatment with Bumex following instances of allergic reactions to furosemide suggests a lack of cross-sensitivity.

CONTRAINDICATIONS: Anuria. Hypersensitivity and in patients in hepatic coma or in states of severe electrolyte depletion. Although Bumex can be used to induce diuresis in renal insufficiency, any marked increase in blood urea nitrogen or creatinine, or the development of oliguria during therapy of patients with progressive renal disease, is an indication for discontinuation of treatment.

WARNINGS: Dose should be adjusted to patient's needs. Excessive doses or too frequent administration can lead to profound water loss, electrolyte depletion, dehydration, reduction in blood volume and circulatory collapse with the possibility of vascular thrombosis and embolism, particularly in elderly patients.

Prevention of hypokalemia requires particular attention in patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis and ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, certain diarrheal states, or other states where hypokalemia is thought to represent particular added risk to the patients.

In patients with hepatic cirrhosis and ascites, sudden alterations of electrolyte balance may precipitate hepatic encephalopathy and coma. Treatment in such patients is best initiated in the hospital with small doses and careful monitoring of the patient's clinical status and electrolyte balance. Supplemental potassium and/or spironolactone may prevent hypokalemia and metabolic alkalosis in these patients. In cats, dogs and guinea pigs, Bumex has been shown to produce ototoxicity. Since Bumex is about 40 to 60 times as potent as furosemide, it is anticipated that blood levels necessary to produce ototoxicity will rarely be achieved. The potential for ototoxicity increases with intravenous therapy, especially at high doses.

Patients allergic to sulfonamides may show hypersensitivity to Bumex.

PRECAUTIONS: Measure serum potassium periodically and add potassium supplements or potassium-sparing diuretics, if necessary. Periodic determinations of other electrolytes are advised in patients treated with high doses or for prolonged periods, particularly in those on low salt diets.

Hypuricemia may occur. Reversible elevations of the BUN and creatinine may occur, especially with dehydration and in patients with renal insufficiency. Bumex may increase urinary calcium excretion. Possibility of effect on glucose metabolism exists. Periodic determinations of blood sugar should be done, particularly in patients with diabetes or suspected latent diabetes. Patients should be observed regularly for possible occurrence of blood dyscrasias, liver damage or idiosyncratic reactions.

Especially in presence of impaired renal function, use of parenterally administered Bumex should be avoided in patients to whom aminoglycoside antibiotics are also being given, except in life-threatening conditions.

Drugs with nephrotoxic potential and bumetanide should not be administered simultaneously. Since lithium reduces renal clearance and adds a high risk of lithium toxicity, it should not be given with diuretics.

Probenecid should not be administered concurrently with Bumex.

Concurrent therapy with indomethacin not recommended.

Bumex may potentiate the effects of antihypertensive drugs, necessitating reduction in dosage.

Interaction studies in humans have shown no effect on digoxin blood levels.

Interaction studies in humans have shown Bumex to have no effect on warfarin metabolism or on plasma prothrombin activity.

Pregnancy: Bumex should be given to a pregnant woman only if the potential benefit justifies the potential risk to the fetus.

Bumetanide may be excreted in breast milk.

Pediatric Use: Safety and effectiveness below age 18 not established.

ADVERSE REACTIONS: Muscle cramps, dizziness, hypotension, headache and nausea, and encephalopathy (in patients with preexisting liver disease).

Less frequent clinical adverse reactions are weakness, impaired hearing, rash, pruritus, hives, electrocardiogram changes, abdominal pain, or thrush pain, musculoskeletal pain and vomiting. Other clinical adverse reactions are vertigo, chest pain, ear discomfort, fatigue, dehydration, sweating, hyperventilation, dry mouth, upset stomach, renal failure, asterixis, itching, nipple tenderness, diarrhea, premature ejaculation and difficulty maintaining an erection.

Laboratory abnormalities reported are hyperuricemia, azotemia, hyperglycemia, increased serum creatinine, hypochloremia, hypokalemia, hyponatremia, and variations in CO₂ content, bicarbonate, phosphorus and calcium. Although manifestations of the pharmacologic action of Bumex, these conditions may become more pronounced by intensive therapy. Diuresis induced by Bumex may also rarely be accompanied by changes in LDH, total serum bilirubin, serum proteins, SGOT, SGPT, alkaline phosphatase, cholesterol, creatinine clearance, deviations in hemoglobin, prothrombin time, hematocrit, platelet counts and differential counts. Increases in urinary glucose and urinary protein have also been seen.

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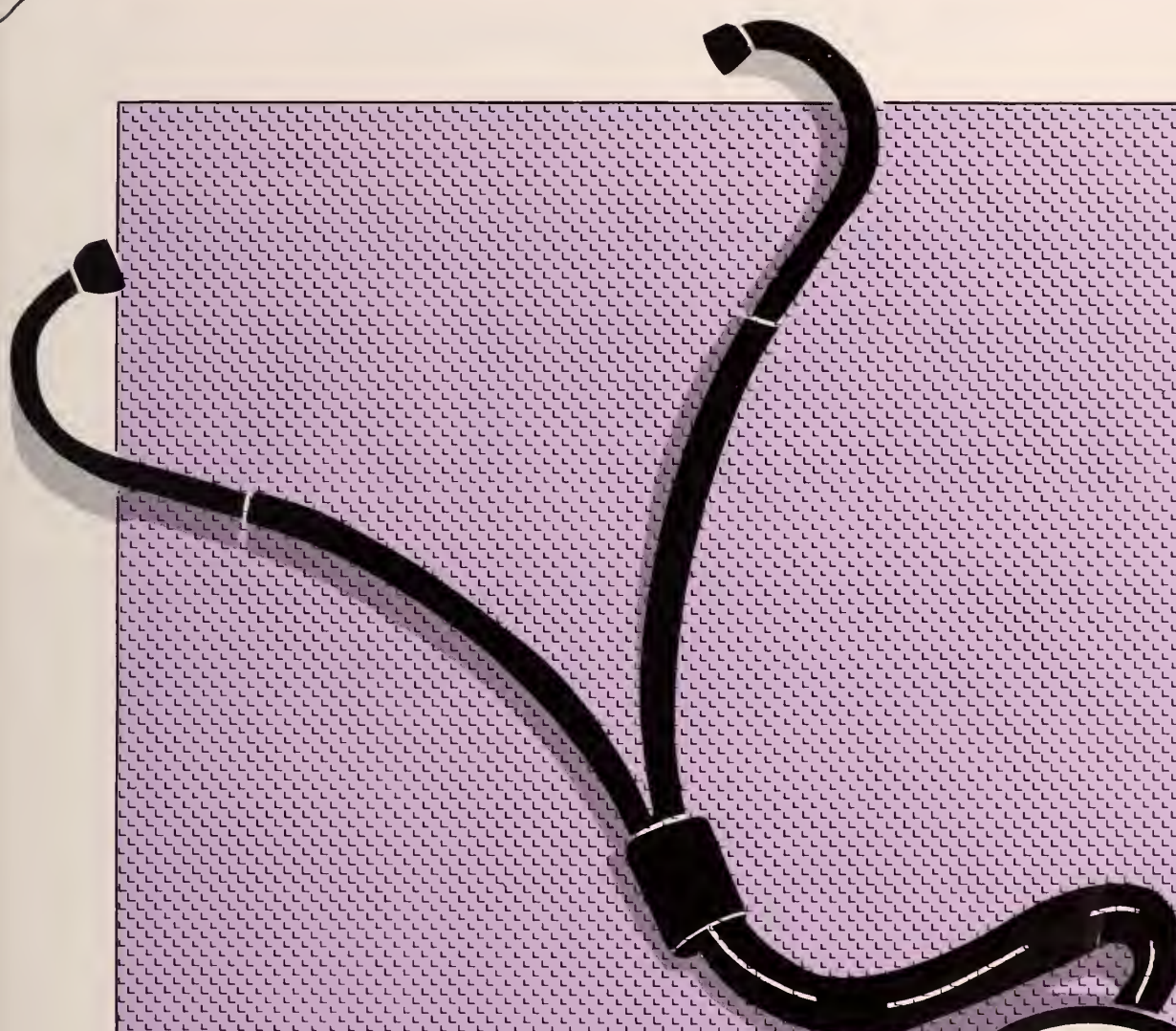
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OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

SEPTEMBER

1987



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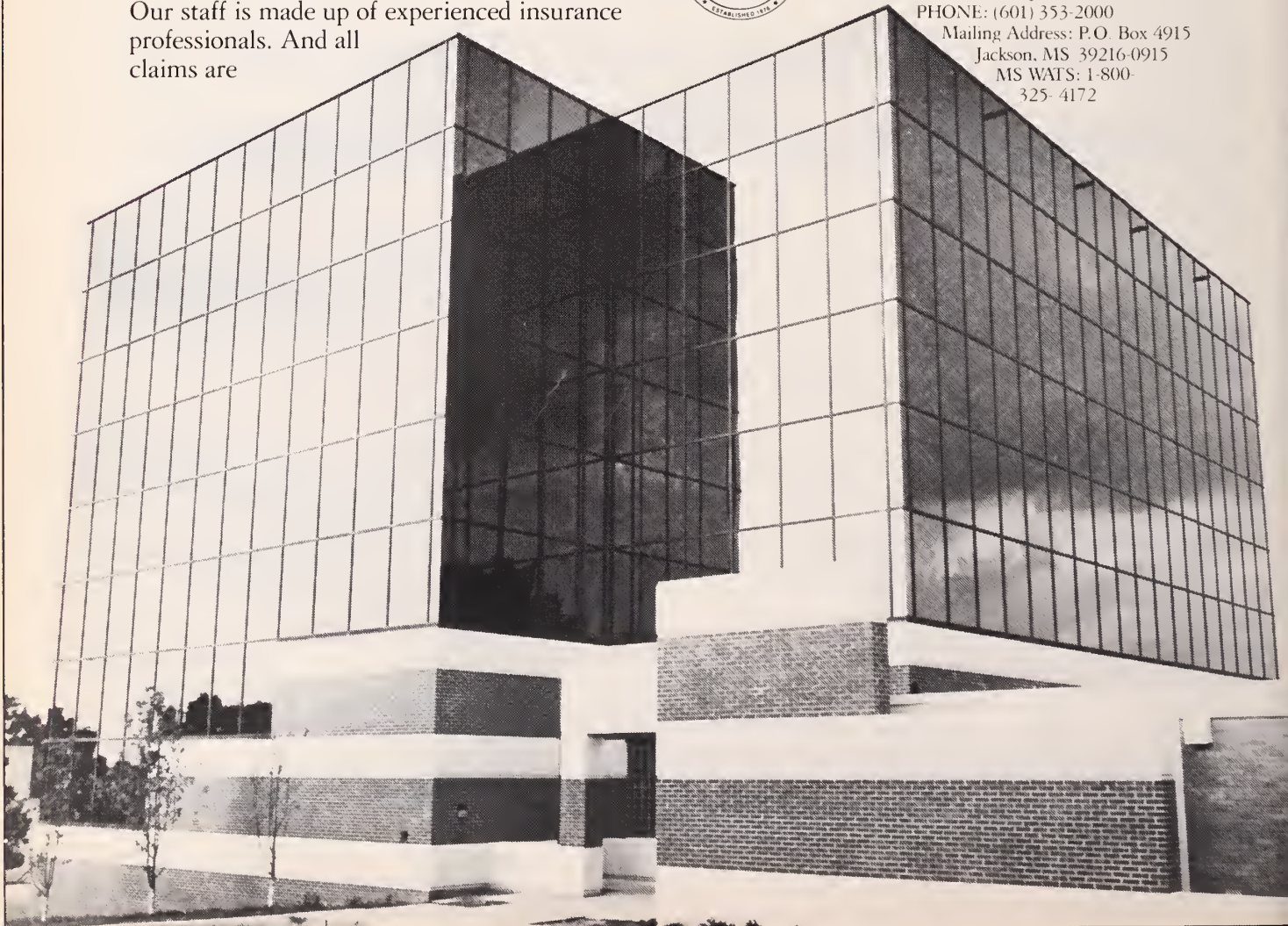
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NEWSLETTER

September 1987

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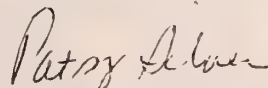
MSMA members can be proud of the success of physician and physician's spouse candidates in this summer's legislative elections. On the ballot for the November general election are Dr. Marc Chetta of Poplarville and Mrs. Ted (Barbara) Blanton of Brandon, both Republican candidates for the Senate, and Mrs. Edwin (Dorothy) Cole of Richton, a Democratic candidate for the House of Representatives.

Other very close primary races involved another physician, Dr. Robert E. Bledsoe of Greenville, and a physician's spouse, Mrs. Jack (Peggy) Hoover of Pascagoula, both of whom waged strong contests against their opponents. Dr. Bledsoe lost to veteran Rep. Sonny Merideth by only 263 votes, and Mrs. Hoover was defeated by only 14 votes.

Patients with at least 70% carotid artery occlusion are invited to participate in a study at University Medical Center to determine whether surgery is beneficial in reducing the long range stroke rate from asymptomatic carotid artery stenosis. The project is a multicenter study funded by the National Institutes of Health. For information, contact any of the participating physicians: Dr. Robert Smith, chairman of the Department of Neurosurgery (984-5700); Dr. Armin Haerer, professor of neurology (984-5500); Dr. Seshadri Raju, professor of surgery (984-5060); and Dr. Jeff Budden, instructor in surgery (984-5060).

At press time St. Paul Insurance Company was expecting a final ruling from the Commissioner of Insurance regarding its request for a 69.5% increase in professional liability insurance rates. Approval of a lesser increase was expected, and St. Paul was expected to continue coverage for at least six months.

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INDERAL LA should not be considered a simple mg-for-mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to INDERAL LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, INDERAL LA has been therapeutically equivalent to the same mg dose of conventional INDERAL as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. INDERAL LA can provide effective beta blockade for a 24-hour period.

INDICATIONS AND USAGE. Hypertension: INDERAL LA is indicated in the management of hypertension. It may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first-degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.

WARNINGS. CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned, the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema) — PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, eg, dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOLYCEMIA. Beta blockers should be used with caution in diabetic patients if a beta-blocking agent is required. Beta blockers may mask tachycardia occurring with hypoglycemia, but other manifestations such as dizziness and sweating may not be significantly affected. Following insulin-induced hypoglycemia, propranolol may cause a delay in the recovery of blood glucose to normal levels.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol may change thyroid function tests, increasing T₄ and reverse T₃, and decreasing T₃.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should

be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncope, attacks, or orthostatic hypotension.

Caution should be exercised when patients receiving a beta blocker are administered a calcium-channel-blocking drug, especially intravenous verapamil, for both agents may depress myocardial contractility or atrioventricular conduction. On rare occasions, the concomitant intravenous use of a beta blocker and verapamil has resulted in serious adverse reactions, especially in patients with severe cardiomyopathy, congestive heart failure or recent myocardial infarction.

Aluminum hydroxide gel greatly reduces intestinal absorption of propranolol.

Ethanol slows the rate of absorption of propranolol.

Phenyltol, phenobarbital, and rifampin accelerate propranolol clearance.

Chlorpromazine, when used concomitantly with propranolol, results in increased plasma levels of both drugs.

Antipyrene and lidocaine have reduced clearance when used concomitantly with propranolol.

Thyroxine may result in a lower than expected T₃ concentration when used concomitantly with propranolol.

Cimetidine decreases the hepatic metabolism of propranolol, delaying elimination and increasing blood levels.

Theophylline clearance is reduced when used concomitantly with propranolol.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing dosages up to 150 mg/kg day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. INDERAL is excreted in human milk. Caution should be exercised when INDERAL (propranolol HCl) is administered to a nursing woman.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System. Light-headedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy, visual disturbances, hallucinations, vivid dreams, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics. For immediate formulations, fatigue, lethargy and vivid dreams appear dose related.

Gastrointestinal. Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory. Bronchospasm.

Hematologic. Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (propranolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL Tablets to INDERAL LA Capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg-for-mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary, especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION — Dosage must be individualized. The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS — Dosage must be individualized. Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three- to seven-day intervals until optimal response is obtained. Although individual patients may respond at any dosage level, the average optimal dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE — Dosage must be individualized. The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimal migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximal dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS. 80-160 mg INDERAL LA once daily.

PEDIATRIC DOSAGE. At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

REFERENCES:

1. INDERAL LA National Compliance Evaluation Program. Data on file, Ayerst Laboratories.
2. Ravid M, Lang R, Jutrin I. The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985; 145:1321-1323.

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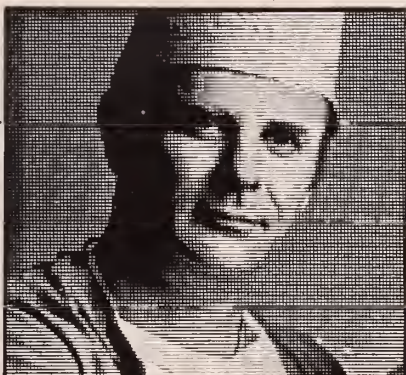
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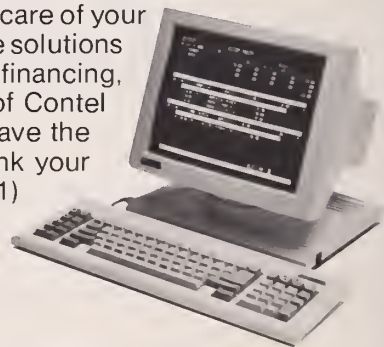
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DATELINE

Three HMOs Authorized To Operate In MS

Jackson, MS - Three HMOs have received Certificates of Authority to operate in Mississippi. The MSMA-sponsored MS Physicians Health Plan was the first authorized to operate statewide. Others are FHP, Inc., to operate in Hinds, Rankin and Madison counties, and MS Doctors HMO, Inc., which has an authorized area including Hinds, Rankin, Madison, Hancock, Harrison, Jackson and Stone counties.

Building Dedication And Open House Set

Jackson, MS - Formal dedication ceremonies of the new MSMA office building on Riverside Drive have been scheduled for Nov. 20-21, the weekend of the Ole Miss - Miss. State football game. Dedication ceremonies will be held on Friday afternoon, November 20, and an open house and tour of the building will be conducted on Saturday, November 21. Watch the "Blue Sheet" and Journal MSMA for more information.

MSMA To Contest Ruling By Ethics Commission

Jackson, MS - MSMA will request a rehearing as a first step in contesting a recent ruling of the MS Ethics Commission that will prevent physicians from serving on governing boards of public hospitals if they also are members of the medical staff. The ruling issued in response to an inquiry from the Winston County Hospital, negates a previous Attorney General's opinion.

Health Expenditures Cost \$458 Billion

Washington, DC - National expenditures for health care reached \$458 billion in 1986, an 8.4% increase over 1985 and the second lowest rate of increase in two decades. The total included hospital care (\$179.6 billion), physicians' services (\$92 billion) and nursing home care (\$38.1 billion). Federal, state and local governments paid \$159.9 billion of the total. Private insurers paid \$122.9 billion.

Court Upholds Blood Donor Confidentiality

New York - A New York trial court ruled that a blood center did not have to provide names and addresses of volunteer blood donors in a transfusion-associated AIDS lawsuit. The ruling stated "the donor's right to privacy together with society's interest in maintaining the free flow of volunteer blood far outweigh the plaintiff's right to disclosure of all evidence..." and "utility of names and addresses of donors is marginal."

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CARAFATE[®]

(sucralfate)

BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that the simultaneous administration of CARAFATE with tetracycline, phenytoin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. The clinical significance of these animal studies is yet to be defined.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No evidence of drug-related tumorigenicity was found in chronic oral toxicity studies of 24 months' duration conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies have not been conducted.

Pregnancy: Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients, adverse effects were reported in 121 (4.7%). Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

HOW SUPPLIED

CARAFATE (sucralfate) 1-gm pink tablets are supplied in bottles of 100 and in Unit Dose Identification Paks of 100. The tablets are embossed with MARION/1712.

Issued 3/84

References:

1. Korman MG, Shaw RG, Hansky J, et al: *Gastroenterology* 80:1451-1453, 1981.
2. Korman MG, Hansky J, Merrett AC, et al: *Dig Dis Sci* 27:712-715, 1982.
3. Brandstaetter G, Kratochvil P: *Am J Med* 79(suppl 2C):36-38, 1985.
4. Marks IN, Wright JP, Gilinsky NH, et al: *J Clin Gastroenterol* 8:419-423, 1986.
5. Lam SK, Hui WM, Lau WY, et al: *Gastroenterology* 92:1193-1201, 1987.

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What do you do for duodenal ulcer patients who should stop smoking, but won't? Both cimetidine¹ and ranitidine² have been shown less effective in smokers than nonsmokers.

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Sucralfate:

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*Significantly greater than cimetidine smoker group ($P < .05$).

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Please see adjoining page for references and brief summary of prescribing information.

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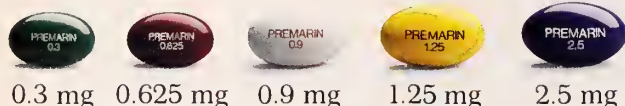
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*PREMARIN is indicated for moderate-to-severe vasomotor symptoms.

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of prescribing information.

For moderate-to-severe
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PREMARIN® (conjugated estrogens tablets)



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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS)

PREMARIN® Brand of conjugated estrogens tablets, USP
PREMARIN® Brand of conjugated estrogens Vaginal Cream, in a nonliquefying base

1. ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA. Three independent, case-controlled studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case-controlled studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semi-annual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration; if therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equi-estrogenic doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY. The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing, in later life, a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects. One case-controlled study estimated a 4.7-fold increased risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mares' urine. It contains estrone, equilenin, and 17 α -dihydroequilenin, together with smaller amounts of 17 α -estradiol, equilenin, and 17 α -dihydroequilenin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe vasomotor symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) Osteoporosis (abnormally low bone mass). Atrophic vaginitis, kraurosis vulvae. Female castration. PREMARIN (conjugated estrogens Vaginal Cream) is indicated in the treatment of atrophic vaginitis and kraurosis vulvae.

PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens. (See PRECAUTIONS.) The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (see Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Estrogens have been reported to increase the risk of endometrial carcinoma (see Boxed Warning). However, a recent large, case-controlled study indicated no increase in risk of breast cancer in postmenopausal women. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism, and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

For atrophic vaginitis

PREMARIN® (conjugated estrogens)

Vaginal
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0.625 mg/g



Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention, such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Pre-existing uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not yet complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:
a. Increased sulfobromophthalen retention
b. Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability
c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T_4 by column, or T_4 by radioimmunoassay. Free T_3 resin uptake is decreased, reflecting the elevated TBG; free T_4 concentration is unaltered.
d. Impaired glucose tolerance
e. Decreased pregnanediol excretion
f. Reduced response to methylprednisolone test
g. Reduced serum folate concentration
h. Increased serum triglyceride and phospholipid concentration.

As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

Long-term, continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. However, in a recent, large case-controlled study of postmenopausal women there was no increase in risk of breast cancer with use of conjugated estrogens.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome, amenorrhea during and after treatment, increase in size of uterine fibromyoma, vaginal candidiasis, change in cervical erosion and in degree of cervical secretion, cystitis-like syndrome, tenderness, enlargement, secretion (of breasts), nausea, vomiting, abdominal cramps, bloating, cholestatic jaundice, chloasma or melasma which may persist when drug is discontinued, erythema multiforme, erythema nodosum, hemorrhagic eruption, loss of scalp hair, hirsutism, steepening of corneal curvature, intolerance to contact lenses, headache, migraine, dizziness, mental depression, chorea, increase or decrease in weight, reduced carbohydrate tolerance, aggravation of porphyria, edema, changes in libido.

ACUTE OVERDOSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSEAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. *Given cyclically for short-term use only.* For treatment of moderate-to-severe vasomotor symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 mg to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. *Given cyclically.* Osteoporosis. Female castration. Osteoporosis — 0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off). Female castration — 1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three- to six-month intervals.

Usual dosage range, 2 g to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

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ORIGINAL PAPERS

Acute Metabolic Acidosis Due to Ibuprofen Overdose

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IBUPROFEN IS A nonsteroidal anti-inflammatory agent commonly used in the treatment of a variety of inflammatory disorders. The drug is an over the counter medication and has become prevalent in households. There have been a number of idiosyncratic and toxic reactions attributed to ibuprofen which include nausea, vomiting, epigastric pain, drowsiness or lethargy,² and occasionally renal and hepatic failure.³ Many patients remain asymptomatic, however, even after large dosages.² Coma and hypotension are rare and only a few deaths have been reported.² Metabolic acidosis associated with renal failure is another complication.^{3, 4} We report ibuprofen intoxication in a child presenting with marked metabolic acidosis and altered mental status without renal or other organ failure.

Case Report

This 23-month-old female was in her usual state of good health until the day of admission. The child was found by the mother after she had ingested an estimated twenty 400mg tablets of ibuprofen. An attempt to induce emesis by giving the child milk failed. The child went to sleep and approximately 30 minutes later the mother was unable to arouse

The authors report the case of a 23-month-old female who ingested approximately 8 gm of ibuprofen. Serum ibuprofen levels were 528ug/ml and 60ug/ml 6 and 24 hours respectively, following the ingestion. The patient was stuporous upon admission and had a marked metabolic acidosis without renal or other organ failure. Treatment of the acidosis caused prompt clinical improvement and there was a complete recovery.

her. The child vomited several times and was then taken to a local emergency room three hours after ingestion. She was unresponsive but had stable vital signs. She was given gastric lavage and transported to the University of Mississippi Medical Center Children's Hospital.

Physical examination showed the patient had a rectal temperature of 96.5°, pulse 128, respiration 32 and systolic blood pressure 94mm Hg. She was responsive only to painful stimuli and had Kussmaul respirations. The pupils were 2-3mm in diameter and slowly reactive to light. There were no localizing neurologic signs and the reflexes were normal. The remainder of the examination was unremark-

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able. Nasogastric aspiration revealed large quantities of orange colored, fragmented tablets. She was treated with activated charcoal and sorbitol by nasogastric tube.

Initial laboratory values showed a sodium of 140meq/l, potassium 4.4meq/l, chloride 104meq/l and bicarbonate 13meq/l with the anion gap of 23. The BUN was 27mg/dl, serum creatinine was 0.7mg/dl, and blood lactate was 4.5meq/l. Arterial blood gases on oxygen by facemask at 5 liters/minutes showed a pH of 7.18, PCO₂ of 31 Torr and PO₂ of 209 Torr. Urinalysis was unremarkable with a pH of 5.0 and a specific gravity of 1.016. The complete blood count was normal. A serum salicylate was 1.7mg/dl. Evaluation of urine and serum for toxins was positive only for ibuprofen. The initial ibuprofen concentration level was 528ug/ml approximately 6 hours after the ingestions.

The child was admitted to the intensive care unit and treated with sodium bicarbonate infusion 5meq/100cc at rate of 3000ml/m²/24 hours. Approximately 11 hours after the ingestion, the patient became more active and responsive. The pH returned to normal 24 hours after ingestion. The following day the child was normal without evidence of gastrointestinal bleeding or other complication and maintained good urine output. The ibuprofen concentration was 60ugm/ml 24 hours after ingestion. The BUN was 22mg/dl and creatinine rose to 1.1mg/dl on the second day. All values returned to normal by the third hospital day.

Discussion

Ibuprofen is a propionic acid derivative and is excreted primarily by the kidneys.⁵ Renal failure is the most serious complication of ibuprofen ingestion.^{3, 4} and is often accompanied by severe metabolic acidosis.⁴ This is the first case in our knowledge of ibuprofen ingestion presenting primarily as

severe metabolic acidosis, without renal or other organ failure. Correction of the acidosis caused prompt return of normal mental function. The mechanism of ibuprofen induced metabolic acidosis is unknown. It is assumed that as with other dicarboxylic acids derivatives, its accumulation, and possibly accumulation of its metabolites cause the acidosis. The drug and its metabolites are eliminated primarily by the kidneys and impairment of renal function could cause accumulation and acidosis.³ However, there was not sufficient renal impairment in this case to explain the severe acidosis. The lactate of 4.5meq/l was also not sufficient to cause the observed acidosis. Ibuprofen may have effects on lactate metabolism as well. Of interest was the detectable salicylate level, even though no salicylates were known to have been ingested.

Ibuprofen and other non-steroidal anti-inflammatory agents are now readily available and are becoming increasingly present in households. Ingestion of toxic quantities of the drug may have no symptoms or more commonly present with gastrointestinal symptoms and altered mental status and, rarely, as renal failure.¹ This case shows that metabolic acidosis in the absence of renal failure is also an important sign of ibuprofen ingestion. ★★

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Orthopaedic Management of Myelomeningocele: General Orthopaedic Management

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THE ORTHOPAEDIC MANAGEMENT of the child with myelomeningocele has undergone significant change in the past 15 to 20 years. Advances in neonatology, pediatric neurosurgery and urology have greatly improved both survival and mental potential. These changes have challenged the orthopaedic surgeon to assist these children in becoming more functional, mobile and productive as well as less prone to setbacks from fractures, pressure ulcerations and inadequate muscle power.

Goals and Treatment

The goal of orthopaedic management is to help the patient develop the maximum functional and physical independence which his level of paralysis allows. This goal should be designed for the child at a young age while considering realistic adult life requirements. Parents and physicians would like to see all patients ambulate; however, it should not be considered a failure of management if a paraplegic patient who walks during childhood finds that he

can be more functional in a wheelchair as an adult. Steps toward maximum independence include the establishment of stable posture through surgery and bracing, in addition to the supervision of aggressive physical therapy and education to produce proper motor development.

Determining Patient Potential

Treatment of the child with myelomeningocele should be governed by that individual's potential for function. That potential is controlled by four factors, the most important of which is the neurological level of the lesion (see Table 1). The patient is classified according to the cord level by the lowest functional muscle groups. These levels are not always clear and are not always symmetrical. In general, patients with lower lesions will have greater functional capacity and fewer complications.

The second controlling factor is the mental ability of the patient. In recent years, the general intelligence of these patients has been greatly improved by early shunting for hydrocephalus and continued monitoring.

The third factor is the child's family. An aggressive and supportive family will insure that optimal medical care is sought.

From the Department of Orthopaedics, University Medical Center (Doctors Fisher and Kendig); the Department of Physical Therapy, University Medical Center (Ms. Cooper) and the Mississippi Children's Rehabilitation Center (Dr. Graves). Dr. Purvis is engaged in the private practice of orthopaedics in Jackson, MS.

The fourth factor is the medical team. An active, informed and concerned team of physicians and allied health personnel can provide a distinct physical and psychological advantage. In our state, the Mississippi Children's Rehabilitation Center and the Children's Medical Program have greatly enhanced the team effort.

Chronological Treatment Principles

A. Neonatal Orthopaedic Care

Orthopaedic care of the myelomeningocele patient in the neonatal period involves both the correction of existing deformities and the prediction of future disabilities. Such care will ideally begin on the day of birth. A thorough evaluation will identify the level of the lesion, associated abnormalities and existing deformities. These deformities may be related to teratological factors, in utero positioning, or muscle imbalance. Deformities may occur in the foot, knee, hip or spine and may reflect the level of paralysis. As an example, a child with an L-3 level of function would have active quadriceps but no active hamstrings and may be born with a hyperextended knee deformity. Treatment of early deformities should be initiated as soon as practical. In some cases, this may require delaying treatment (such as casting a clubfoot) until the spine defect has been closed by the neurosurgeon. Proper positioning of the child's hips should be started shortly after birth to either maintain the hip in a reduced position or, when already unstable, to allow stretching of the soft tissues in preparation for subsequent reduction. Hip abduction devices may be helpful, provided they do not produce pressure over the

freshly repaired spinal defect. Congenital spine deformities may be apparent at birth and in some instances, there may be indications for primary surgical correction of these deformities (such as a severe kyphosis) at the time of closure of the defect.

Early determination of subsequent neurological function may be difficult in the newborn. However, a baseline evaluation is necessary so that any subsequent deterioration in function can be noted. The physical therapist is also involved in the care of myelomeningocele patients in this neonatal period. Teamwork between the orthopaedic surgeon and the physical therapist begins here and extends throughout the lifetime of the patient. The physical therapist's role includes general evaluation, instructions to the family regarding positioning and handling the child, and maintaining a range of motion of the paralyzed joints. Parent education is one of the most important functions the therapist will carry out as the child grows.

B. Infant Orthopaedic Care

It is usually desirable to have completed surgical correction of any significant lower extremity deformities by the time the child is 12 to 18 months of age, so that planning for upright posturing and mobility can be initiated (see Figure 1). Children with significant paralysis will often be delayed in achieving early motor milestones. Realistic aims for mobility may be established early, based on the neurosegmental level of the patient and mental capability. Some children may not reach the maximum potential for mobility as predicted by their neurosegmental level because of associated spasticity or

TABLE I
FUNCTIONAL CLASSIFICATION OF MOTOR PARALYSIS BASED ON VOLUNTARY CONTROL OF A JOINT AND THE GENERAL RELATIONSHIP TO AMBULATION POTENTIAL

<i>Lesion</i>	<i>Motor/Sensory Level</i>	<i>Function</i>	<i>Probable Muscles Functioning</i>	<i>Potential for Ambulation</i>
Cervical and high thoracic	Usually none	None	None	Very poor even in full braces
Thoraco-Lumbar	T-12	None	None	Full braces, long term ambulation unlikely
	L-1	Weak hip flex	Iliopsoas	
	L-2	Strong hip flexors	Iliopsoas & sartorius	
Lumbar	L-3	Knee extension	Quadriceps	May ambulate with braces and crutches
	L-4	Knee flexion	Medial hamstrings	
Lumbo-Sacral	L-5	Foot dorsiflexion & eversion	Anterior tibial & peroneals	Will ambulate with or without short leg braces
	S-1	Foot plantar-flexion	Gastrocnemius, soleus & posterior tibial	

Aids for Progressive Development










	3-5 months	6-9 months	7-12 months	12 months	
Normal Development					
Developmental Cues	visual field important	hands and arms used	exploration of the environment	standing experience	walking
Myelomeningocele					
	3-8 months	8-14 months		12-18 months	18 months-up

Figure 1.

cerebellar problems. However, realistic attempts to reach these goals should be encouraged. Perhaps the earliest goal for all children is to achieve upright posturing. This will increase awareness of the environment and visual field enhancement, as well as free the upper extremities for developing fine motor skills. During infancy this will require the use of an infant seat or custom chair with straps.

Many patients will begin crawling and scooting on the floor prior to bracing. Due to insensitive skin, problems of ulceration or blisters may occur and delay other treatment such as surgery or bracing. The therapist is actively engaged, at this point, in educating the parents in the care and prevention of such difficulties. Ideally, when the child attempts such mobility on his own, he can be supplemented with lightweight braces or wheeled devices to encourage mobility.

C. Childhood Care

It is generally assumed that all children who are not severely mentally retarded and who do not have gross spasticity will walk, and they should be encouraged to that end. Realistically, some children

will be ambulatory only for a brief period in their life. However, even such short periods can be beneficial by allowing development of not only gross motor activities and bone strength, but also socialization, language, self-help, fine motor and cognitive experiences. In contrast, prolonged sitting can lead to decubitus ulcerations, urinary stasis and flexion deformities. Standing and walking between the ages of 1 to 2 years is desirable and will be influenced by the patient's functional level.

1. Upper Thoracic Lesions

Children with high thoracic lesions have poorly developed spinal and abdominal muscles and will require support even to sit. Spinal support is necessary to allow freedom of use of their hands. The initial use of a standing frame prior to ambulatory type braces is common and an adaptive tricycle is helpful for mobility and upper extremity strengthening (see Figure 2). The majority will develop spinal deformities which may require surgical correction. The primary goals include good sitting balance and possibly walking capabilities through the early years. Thereafter, good up-



Figure 2. Myelomeningocele patient, T-10 functional level, 10 months of age, in standing frame.



Figure 3. Patient with L-4 level lesion with full control braces, pelvic band, but no body orthosis.

per limb function, ability to transfer from and propel a wheelchair and social acceptability will be much more important. Assistance will always be required for activities of daily living and for community activity.

2. Lower Thoracic Lesions

Most of these children can become good sitters and eventually be independent in transfers and wheelchair mobility. Most will walk in full control braces until the teenage years, but few will continue walking as adults.

3. Upper Lumbar Lesions

Children with upper lumbar lesions have the ability to flex their hips but not to extend their knees voluntarily. Crutches and long leg braces will always be required, and most children will need pelvic bands attached to their braces for hip support. Surgical correction of hip and knee deformities may be necessary early. Many will limit the use of braces to the household environment and will be more functional as a wheelchair user in adult life (see Figure 3).

4. Lower Lumbar Lesions

Children with lesions in the lower lumbar area have strong knee extension and some will become ambulatory with the use of short leg braces without crutches. Due to muscle weakness below the knee, surgical releases or transfers may be required to meet the demands of heavy activity. If the patients have weak hip abductors, they may require the use of crutches to be community ambulators.

5. Sacral Lesions

Most children with sacral lesions will be ambulatory without the aid of braces or crutches throughout life. Surgical procedures to correct foot deformities will be likely. Hip and spinal deformities are uncommon in this group.

Musculoskeletal Complications

Due to paralysis, disuse and periods of casting, the bones of the lower extremities may become os-

teoporotic and easily fractured. There may be a delay in the diagnosis secondary to the loss of sensation. Such a pathological fracture may be associated with high fever, marked swelling and erythema, even prior to radiographic signs. Commonly, such fractures will heal with marked amounts of periosteal new bone formation and impressive radiological findings. Treatment of the fracture by immobilization may lead to further osteoporosis and additional fractures. Ideally, treatment of the fractures should be aggressive with well padded casts or supports applied after accurate reduction, allowing early mobility and weight-bearing (see Figure 4). Open reduction and internal fixation may be appropriate in some long bone fractures to facilitate

continued mobility.

Neuropathic changes in joints may occur as a result of adjacent epiphyseal fractures or joint trauma. The absence of protective sensation may allow continued passive motion and repeated trauma leading to chronic effusion and bony overgrowth. Chronic joint space narrowing may occur and may become symptomatic.

Pressure sores in areas of sensory loss will most frequently occur about the sacrum, ischial tuberosities or feet. The subsequent interruption of therapy, inability to wear braces and need for prolonged treatment of the ulceration can become a great physical and financial burden. Extreme care should be utilized by the orthotist when fabricating braces and

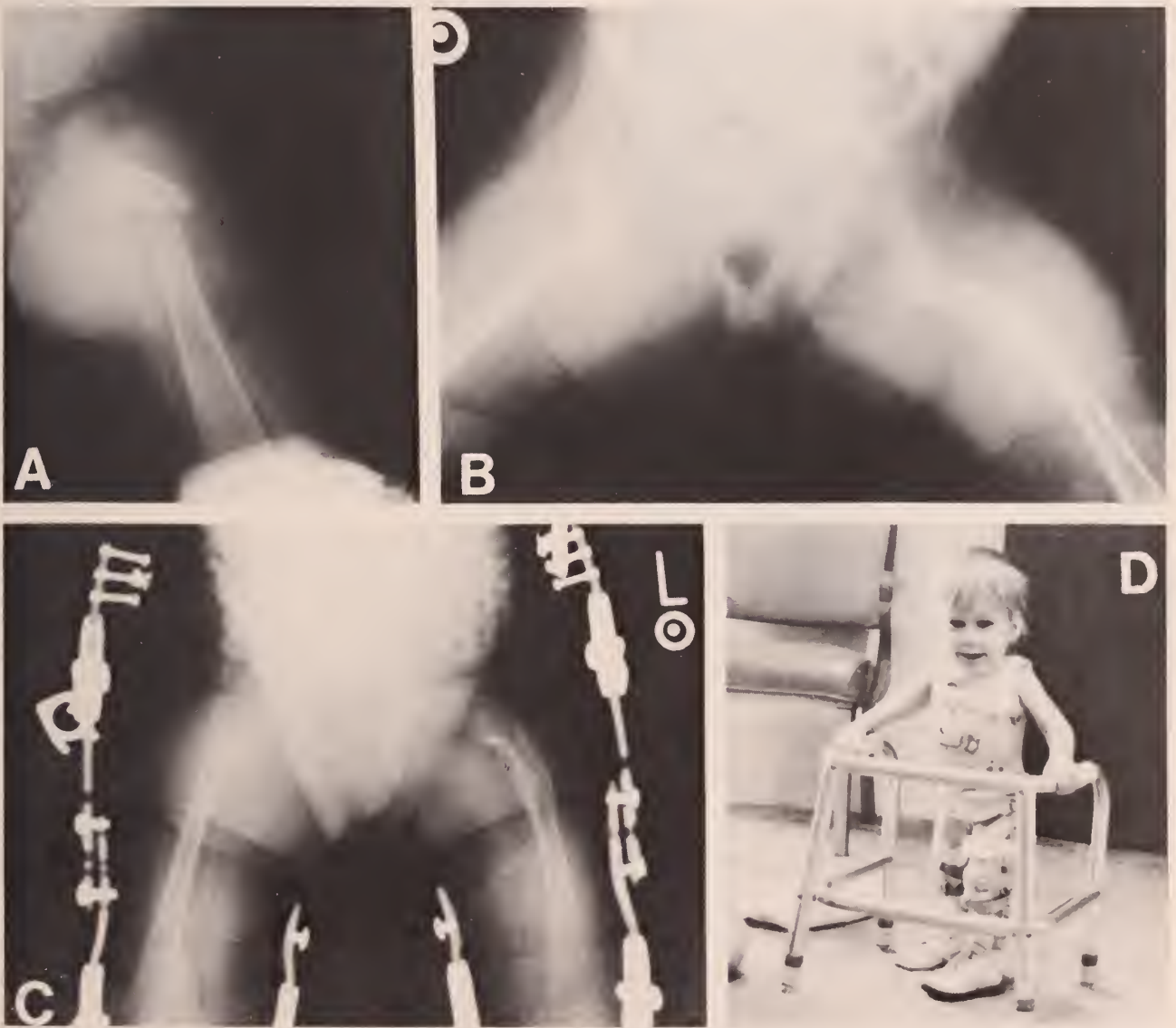


Figure 4. T-12 L1 level patient with multiple fractures: (A) subtrochanteric fracture of left femur; (B) two months later, bilateral trochanteric fractures; (C) three months later, supracondylar fracture, right femur; (D) end result, full control braces with thoracolumbar sacral orthosis.

by the medical team when applying casts and braces to avoid areas of pressure. Early correction of deformities may relieve potential pressure areas and the family and the patient must be continuously educated to observe for potential pressure problems.

Role of the Mississippi Children's Rehabilitation Center and the Children's Medical Program

In our state, the Mississippi Children's Rehabilitation Center and the Children's Medical Program (Division of the State Department of Health) play extremely important roles in the treatment of children with myelomeningocele. Proper orthopaedic management of these children require experienced and qualified therapists to help with early upright posturing and subsequent standing and walking. Short term admissions to M.C.R.C. for brace fitting and instruction, as well as post surgical care, have been very effective. The availability of not only physical therapists, but also occupational therapists, speech therapists, teachers, social workers and nurses experienced in the care of children with myelomeningocele can help the patient and his family maximize his potential with minimal time and transportation requirements. The Mississippi Children's Medical Program has been instrumental in providing the facilities, organization and funding to bring the medical team together for optimum care of these patients. This is focused at the Blake Clinic for Children in Jackson in one of three myelomeningocele clinics held each month. At each clinic every

patient can see all members of the health care team involved in his care. Similar clinics are held in Pascagoula and in Memphis.

Summary

The patient with myelomeningocele is a significant challenge because of the multisystem nature of his disability. For this reason, the treatment of myelomeningocele is a team effort from the very beginning involving not only health care members but also parents and patients. Considerable time and effort must be invested in their education as to the nature of the disability and their involvement in its treatment. The patient's outcome is governed by the level of the lesion, his mental ability and the abilities and aggressiveness of the medical team and family. When these efforts are properly coordinated, the patient is able to maximally develop his potential so that the potentially devastating health and social consequences can be minimized. ★★★

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Radiological Seminar CCXLVI: Radiographic Evaluation of Blowout Fractures of the Orbit

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BLUNT TRAUMA TO THE EYE is a common complaint seen by the primary care physician or emergency room physician. One of the more common sequelae occurring due to blunt trauma to the eye is the blowout fracture. The classic clinical findings consist of enophthalmos, diplopia on upward gaze, and anaesthesia in the distribution of the infraorbital nerve.¹ However, these physical findings are difficult to evaluate in the acute setting due to swelling about the eye which may mask the enophthalmos. The swelling may also cause restriction of ocular motion, simulating the diplopia of upward gaze in the classic blowout fracture.²

In the classic paper by Smith and Regan³ the blowout fracture is described and the mechanism of injury demonstrated. Blunt trauma to the orbital contents creates a fracture of the orbital floor with periorbital fat and inferior rectus muscle prolapse through the defect in the floor of the orbit. This herniation of orbital contents into the superior aspect of the maxillary sinus causes diplopia on upward gaze by entrapping the inferior rectus muscle.

The plain film radiographic findings of a blowout fracture consist of an inverted dome-like or polypoid mass protruding from the roof of the maxillary antrum, opacification of the involved maxillary sinus, and possibly a fracture fragment hanging from the orbital floor into the sinus.² An indirect sign is emphysema or air seen within the orbit. These findings are best appreciated on the Waters projection (see Figure 1). Unfortunately, plain film diagnosis is at times extremely difficult, and more sophisticated modalities may be necessary.

Until recently plain film tomography was the study of choice for further evaluation of a blowout frac-



Figure 1. Blowout fracture on left; Waters view. The arrow indicates prolapse of orbital soft tissues into maxillary antrum. Orbital emphysema is also present.

ture.^{2, 4, 5} The tomographic examination demonstrates to good advantage the position and degree of displacement of fracture fragments and does detect soft tissue densities along the roof of the maxillary antrum. Recently, however, computed tomography (CT) has supplanted tomography as the imaging modality of choice for a blowout fracture.^{2, 4, 5} The antral roof soft tissue densities seen on plain tomography are also clearly demonstrated by CT (see Figure 2). However, due to the increased contrast resolution of CT, the prolapsed soft tissues

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Figure 2. Direct coronal CT scan of left blowout fracture. Arrowhead indicates orbital floor fracture with some protrusion of orbital soft tissues from roof of maxillary antrum.

can be differentiated as to whether they represent only periorbital fat or both fat and the inferior rectus muscle which have herniated into the antrum (see Figure 3). CT also helps differentiate unrelated antral pathology from a blowout fracture. In addition, CT has been found to be more sensitive for evaluation of medial orbital wall fractures and herniation of orbital contents into the ethmoid sinuses.⁴ The globe and other soft tissue components of the orbit are also better evaluated with CT than with plain film tomography.

CT images of patients with possible blowout fractures may be obtained in the axial plane, parallel to the orbital floor.⁴ These axial slices should be thin and closely spaced to allow for oblique sagittal computer reformation, as this plane has been found to be more helpful than the coronal plane for evaluation of the inferior rectus muscle. Direct coronal CT images, however, are more sensitive in diagnosing subtle orbital fractures and to further define anatomy.⁶

In conclusion, the physical diagnosis and plain



Figure 3. Reconstructed oblique sagittal CT scan of left blowout fracture. Computer reconstructed image (top) was made along the plane indicated by the white line on the axial image (bottom). Only mild downward protrusion of orbital contents into the sinus and no definite fracture line are identified on this single image. However, the status and position of the inferior rectus muscle (arrow) are well shown.

film diagnosis of an orbital blowout fracture may be extremely difficult. Further evaluation for a possible blowout fracture has been accomplished by plain film tomography in the past. However, CT is now the modality of choice for diagnosis and evaluation of the blowout fracture. ★★★

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Mississippi's First Pediatrician — Dr. F. Gail Riley

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MISSISSIPPI'S FIRST pediatrician was Franklin Gail Riley, M.D. of Meridian.^{1,2} After completion of formal residency training in pediatrics, he began practice in 1922; he died in 1967. His was an interesting career which was concerned with many different aspects of health care of children in his state and region and one which touched the lives of many different persons.

Dr. Gail Riley was my uncle. As a boy and later as a medical student, I listened avidly to stories about his medical practice. As a pediatrician myself, I later stood in awe of his contributions in view of the obstacles he faced. The purpose of this report is to provide an overview of his career as the first full-time physician specialist in child health in Mississippi.

Franklin Gail Riley was born near Quincy, Monroe County, Mississippi on August 20, 1886. The Riley family was among the early settlers of north Mississippi, having come there from Virginia and South Carolina. His grandparents were Dr. James Stacey Riley, a native of South Carolina, and Laura Wise Riley of Mississippi. After graduation from Atlanta Medical College in 1856, Dr. James S. Riley came to Mississippi in 1857 and settled in Monroe County. After serving as a private in the 43rd Mississippi Regiment of the Confederate Army, he resumed the practice of medicine in Monroe County. He practiced here for 45 years until his death in 1905 at age 70. The father of Dr. Gail Riley was William Franklin Riley (1862-1952), one of five children of Dr. and Mrs. James S. Riley. William Franklin Riley was born in Monroe County but moved to Lee County, Mississippi. After graduation from the University of Mississippi, he was engaged in the lumber business in Tupelo and had extensive real estate holdings in Lee County. He married Minnie Lee Harris, a native of Lafayette County, Mis-

issippi, who died in 1927 at the age of 62 years. She was a daughter of L. Harris, who for many years was chancery clerk in Oxford, Mississippi, and a niece of Thomas Isom, M.D. of Oxford. In the family of Mr. and Mrs. W. F. Riley were six children: Franklin Gail, Laura M., James L., Maggie, Harris D., and Wilbur F. Gail was the oldest of the six children.^{1,3,4}

Gail Riley attended the elementary grades and high school in Lee County. His father had moved the family to Tupelo so that his children "would have the benefit of better schools."⁵ Gail Riley spent two years, 1902-1904, at Mississippi State College in Starkville. After this, he was employed for three years as a clerk and prescriptionist in the C. H. Clifton Drug Store in Tupelo. At this time he entered the study of medicine to complete the ambition of his life — to be a physician.⁵ In the fall of 1907 he enrolled in the University of Nashville Medical Department, Nashville, Tennessee. After attending two courses of lectures and lacking funds to continue his education, he took and passed, after two years of study, the examination of the Tennessee State Medical Board in 1910. He then went into general practice in Macon, Fayette County, Tennessee (see Figure 1). During the three years he was in general practice in Macon, he saved sufficient funds to complete his medical education. In September 1913 he reentered the Medical Department of the University of Tennessee, which had been relocated to Memphis in 1911. He received the M.D. degree in June 1915.^{1,5,6}

After graduation from medical school, the young Dr. Riley was again badly in need of funds. He located in Booneville, Prentiss County, Mississippi, in general practice and was associated with Dr. W. H. Sutherland there. He materially assisted in the organization of the Northeast Mississippi Hospital in Booneville.^{1,5}

On December 12, 1912, while practicing in Macon, Dr. Riley was united in marriage to "his one

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and only sweetheart," Harriet (Hattie) Frances Gardner of Tupelo, Mississippi, who was born there on February 12, 1887. She was one of ten children of Anna Rebecca and T. E. Gardner, a merchant of that town. Not enough can be said about the importance of the role Mrs. Hattie Riley played in her husband's career. She was his wife for 55 years and was his faithful, loving companion. She was always cheerful, guarded Dr. Riley's limited time available to his family, and protected his fragile health. She died only recently.

Prior to America's entrance into World War I, Dr. F. Gail Riley enlisted in 1917 in the British Army and in June of that year was commissioned first lieutenant and in August 1917 sailed for France. On arrival in France he was assigned to a combat infantry battalion of the British Army as a regimental medical officer. He was one of 1,400 American physicians who responded to a request for physicians to assist the British forces. Dr. Riley was one of only 200 survivors of this group now known in history as the "Lost Legion." While in Europe, he was on active duty in combat in every major offensive and defensive battle on the western front in which the British and American Armies were engaged from October 1917, until the Armistice, November 11, 1918. His battalion took part in the first test of tanks as an instrument of war at the battle of Cambrai in November, 1917. While serving as a battalion medical officer, he was gassed twice and wounded by shrapnel three times. He was involved in the bloody Somme Defensive, March 21, 1918 to March 24, 1918. He was one of 81 survivors out of 1,600 men who blunted the German offensive in March, 1918, which many regard as the turning point of the war. He also participated in the Somme Offensive, October 4, 1918 to November 11, 1918. In November 1918, he was promoted to the rank of captain and later in the same year to major. He remained in the Army Reserve Corps until 1930.^{1, 5, 7}

After discharge from active duty in May 1919, Dr. Riley resumed general medical practice in Booneville. He organized an American Legion post and served as commander for one term. He remained in Booneville until March 1920.

During his years in general practice, Dr. Riley became increasingly interested in pediatrics. He was alarmed at the extremely high infant and child mortality as well as the indifference and ignorance of most physicians about the special needs of children. In 1920 he took a postgraduate course in pediatrics at Tulane University. In the summer of that year he enrolled in the Postgraduate Medical Division of the

University of Pennsylvania at Philadelphia to specialize in pediatrics. In two months he was appointed resident in pediatrics at St. Christopher's Hospital for Children, Temple University School of Medicine in Philadelphia, and one year later was made chief resident. St. Christopher's Hospital for Children was an excellent hospital for the care of children and a training position there was highly prized.⁸ He completed residency training in pediatrics there in 1922.^{1, 5, 7} While in Philadelphia, Dr. and Mrs. Riley's first son, William Gail Riley, was born in June 1922. Twenty-six years later Dr. William G. Riley was a resident in pediatrics in Philadelphia.

Upon completion of his residency training, young Dr. Gail Riley considered Birmingham as a place to locate. He learned, however, that Mississippi had no pediatricians. He also learned that Meridian in Lauderdale County was thriving and offered considerable opportunity. Thus, in September 1922 he came to Meridian as the first pediatrician in the state of Mississippi.^{1, 2}

"With the aid, counsel, and advice of the late Drs. Samuel H. Houston, J. H. Rush, R. L. Turner, and Thomas Bourdeaux, he soon established a nice pediatric practice."⁵ Dr. Riley brought with him new methods in the diagnosis and treatment of disorders of children which will be described later. In a short time patients from many areas of Mississippi and from surrounding states were referred to him. His first office was in a downtown building known as the Pigford Building.^{5, 7} Three years after moving to Meridian his other son, Richard Franklin Riley, was born.

Let us examine the status of child health in the first quarter of the 20th century when Dr. Gail Riley entered the practice of pediatrics. Perhaps the most important development during the first quarter of the 20th century was the gradual acceptance of pediatrics as a specialty. The important realization that children and particularly infants were not merely small adults, that they differed profoundly from adults in terms of physiology, biochemistry, pathology, and bacteriology was not fully appreciated until a few physicians towards the end of the last and the beginning of this century began to devote their whole time to the study of diseases of children. Early in this century there were probably not more than 50 medical practitioners in the entire country who took a particular interest in the pediatric age group and not half a dozen men practiced pediatrics exclusively. Possibly one doctor out of every 2,500 in the United States could have been classified as a pediatrician.^{9, 10} Dr. F. Gail Riley accepted this large challenge.



Figure 1. The office of Dr. F. Gail Riley in Mason, Fayette Co., Tennessee. A sign bearing the name "Dr. F. G. Riley" can be seen to the left of the door. Also shown is buggy and horse used to make house calls. One of the horses was named Caesar. His original owner planned to sacrifice him because of some type of high respiratory tract obstruction. Dr. Riley performed a tracheostomy, relieving the obstruction, and the grateful owner gave the animal to Dr. Riley. Caesar survived for several years.

In the late nineteenth century in the United States, of every 1,000 children born alive as many as 200 might be expected to die before the age of one year of such conditions as diarrheal disease, pneumonia, measles, diphtheria, whooping cough and other infections.⁹ The early and continuing efforts of the young specialty of pediatrics, combined with those of workers in public health and in immunology, led to much better understanding of the origin and management of many medical problems of infants and children.^{9, 11} As the new century began, summer diarrhea of infants (cholera infantism) remained a prevalent and serious disease without effective method of treatment. In New York City, for example, during the first decade and a half of this century, 1,500 infants would be killed by it each week during the hot weather season.¹⁰ However, bacteriological studies of stools in children with this

disorder were underway.¹² Acute infections and the chronic disturbances associated with deficits of calories, vitamins, minerals, or proteins were studied intensively, and the acute nutritional and metabolic disturbances such as the disorders of fluid and electrolyte balance that accompany acute diarrhea also received attention.⁹

The period 1915-1927 in American pediatrics was characterized by advances resulting from the fostering of pediatric biochemistry. It was conclusively demonstrated that the main metabolic abnormalities in diarrhea were acidosis and dehydration rather than "intestinal intoxication." There were important advances in the knowledge of nutrition and in nutritional disorders as well as other advances.¹²

Thus, when he came to Meridian in 1922, young Dr. Gail Riley was confronted with innumerable children suffering from diarrheal disease, various

infectious diseases, nutritional disturbances and other disorders. However, he brought with him revolutionary new diagnostic and therapeutic methods which he had acquired during his residency training in Pediatrics. He was the first physician in Meridian (and likely in the region) to administer fluid and electrolytes intravenously. He was also the first to employ blood transfusions.¹³ The lives of countless infants and children were saved by correction of the dehydration and shock caused by diarrheal and infectious diseases using these treatments. Dr. Riley was also the first physician in Meridian to utilize the hemogram as a diagnostic tool.⁵

Dr. F. Gail Riley was not only the first fully trained pediatrician in Mississippi but he also established the state's first children's hospital. In October 1929 construction began on Riley Hospital. It was opened to patients in 1930 as a 10-bed children's hospital with associated clinic and office. Periodically, Dr. Riley purchased adjacent property and step-wise enlarged the hospital in size and scope. An obstetrical service was added to complement the pediatric service. "It [Riley Hospital] was immediately recognized as one of the best hospitals in the state. . . . It was the first specialty hospital in Meridian dealing with pediatric and maternity cases."¹³

In its early days Riley Hospital was operated by Dr. Riley and his associate and nephew, Ray L. Rhymes, M.D. The original and efficient hospital administrator and director of nursing service was Ms. Hettye Ellzey, R.N., who served in these capacities until 1965. Four additions were made to the original structure between 1930 and 1960 and the hospital grew to 56 beds. As the demand for services increased, it was gradually expanded into a general hospital. In a letter written in June 1941 to Dr. Leon S. Lippincott of Vicksburg, Dr. Riley referred to the hospital as one of his "three babies," the other two being his sons. It was Dr. Riley's stated desire and ambition "to see our institution ranked with the best in the South."¹³

Taylor and Ethridge, in their *Mississippi: A History*, stated in reference to Riley Hospital: "This is considered one of the best hospitals in the state in its equipment and in its methods, and having been built personally by Dr. Riley, he has secured an excellent staff of local doctors."¹

In 1968 the new F. G. Riley Memorial Hospital was completed; it is located across the street from the original building. When it opened, it had 104 beds and totally new and completely modern equipment. In 1974 the bed capacity was increased to 168. Another addition of beds and supporting serv-

ices is in progress which will bring the current bed count to 181 (see Figure 2).

Dr. Riley's practice continued to grow. He was increasingly sought as a consultant for complex cases. As the second quarter of this century began, there were no antibiotics, no sulfonamides, no steroids and only one vaccine. Diarrheal disease remained a major cause of morbidity and mortality.¹⁴ Although his supportive treatment methods had proved effective, Dr. Riley realized that steps must be taken to prevent this disorder so deadly to children. He pioneered in the instruction of parents in proper methods of sterilization and infant feeding. Undoubtedly, this contributed significantly to the prevention of innumerable cases of diarrheal disease. He was among the first physicians to use soy meal formulas in gastrointestinal allergy. Dr. Riley was always in the vanguard of new developments in pediatrics. He read medical journals avidly and frequently would telephone an author to learn more about a new development or to discuss a problem patient.

The American Academy of Pediatrics was founded in 1930¹⁶ and Dr. Riley was made a charter member. The American Board of Pediatrics was formed in 1933;¹¹ Dr. Riley was certified without being requested to stand the examination (see Figure 3).

The formation of the American Academy of Pediatrics in 1930 stirred into action eight or nine pediatricians in Mississippi to organize a state organization. They had gathered informally at state medical meetings and through mutual interests discussed the creation of a state pediatric society. Dr. F. Gail Riley was present at the organizational meeting of Mississippi State Pediatric Society in the Robert E. Lee Hotel in Jackson in the spring of 1934. Others attending this meeting were Drs. Noel C. Womack, Sr., J. K. Bullock, Guy Verner, Harvey F. Garrison, Jr., all of Jackson; George Lamar Arrington, Meridian; Joe E. Green, Laurel; R. E. Wilson, Greenville; W. P. Robert and Guy C. Jarratt, Vicksburg. The Society held one or more scientific sessions annually for a period of 25 years. This group immediately went to work on an educational program concerning child health and visited many different areas of the state.¹⁵

Robinson reported that the candor and camaraderie of this initial group was carefully recorded during the meeting on May 13, 1935. Dr. Riley maintained that breast milk analysis was of little value and insisted upon low fat content in his formulas. He said, "Jersey cows have paid for one of the best homes in Meridian, but I have been accused of being interested in a Holstein dairy because of



Figure 2. F. G. Riley Memorial Hospital in 1986.

the low butterfat . . . the Eskimo can eat whale blubber and get by with it, but the Southern baby can't do it." Dr. Riley took the conservative stand with the AMA on the routine use of Sauer's vaccine against pertussis which produced severe febrile reactions. He enunciated the lament of all physicians concerning medical recommendations by the lay press: "I think it is a crime to accept things that are written in magazines such as the *Good Housekeeping* which tells the people that it is an absolute preventive against whooping cough."¹⁵

Dr. Riley served as vice-president of the State Pediatric Society.

In addition to being called upon increasingly as a consultant, Dr. Riley was frequently invited to speak on child health topics at medical and scientific meetings. He was the author of several publications. For example, he published articles on diseases of the pylorus, management of pneumonias in infants and children, and asphyxia neonatorum.

Later he referred to Johns Hopkins Hospital, Baltimore, one of the early patients with tetralogy of Fallot who underwent evaluation by Dr. Helen Taussig and surgical repair by Dr. Alfred Blalock. Dr. Riley followed the patient closely, speaking frequently to Drs. Taussig and Blalock by phone. The patient only recently expired.

As a boy, I looked forward to visits to Meridian because, among other things, it permitted a visit to Uncle Gail's office and to the hospital. His office was in a large room just inside the front entrance to the hospital. It seemed to me that medical books were everywhere. On one wall was a large glass display case. In this and under the glass cover on top of his desk were literally thousands of pictures of children who were or had been his patients. Most of these were inscribed with some notation to him. The families of patients there to see him seemed to dote on his every word. A visit in his office was always punctuated by phone calls from other physicians to him asking his advice about a patient. I am confident, in retrospect, that my exposure to him further reinforced my desire to pursue a career in medicine.

An editorial in the *Meridian Star* of February 10, 1960, Meridian's one-hundredth birthday, provided a list of "people who helped put Meridian on the map in recent years." It included Dr. Riley, identifying him, "Dr. F. G. Riley, pediatrician par excellence."¹⁶ Another biographical sketch stated: "His activities have been of far-reaching effect and importance in his chosen field. . . ."¹

As mentioned above, Dr. Riley was actively involved in combat as a medical officer in World War

I. When the United States entered World War II in late 1941, he attempted to enlist again. On December 8, 1941, the day after the Pearl Harbor attack, he wrote to the Commanding General of the Fourth Corps area and volunteered his services. His offer was refused because he was beyond combat age. Dr. Riley then asked his congressman to intercede with the surgeon general of the army. Brigadier General McAfee of that office expressed regret at having to decline Dr. Riley's offer for service. He stated, "It is gratifying to know that physicians who served in the past war are so eager to offer their services. Dr. Riley served with distinction in the first World War, receiving much commendation for his work from his superior officers."¹⁷ In a letter to Dr. G. S. Bryan of Amory of April 23, 1942, Dr. Riley commented, "Of course, no sensible man wants to leave his practice and no thoughtful man wants to die, but every man worthy of his name and especially worthy to be recognized by our profession should realize that this is a duty not only to their country, but to their children, grandchildren, etc." Although he was rejected because of age for military service, he served on the selective service board for Lauderdale County.¹³

In November 1943 in a letter Dr. Riley stated his desire to reduce his practice and to relinquish it gradually to others. He then pursued this course. As he did so he became more and more interested in state political races, particularly those for governor. He would carefully review the respective records of the candidates, decide on his choice and then support him vigorously.

Dr. and Mrs. Riley belonged to the Presbyterian Church. In addition to the American Academy of Pediatrics and the Mississippi State Pediatric Society, Dr. Riley belonged to American Medical Association, the Southern Medical Association, the Mississippi State Medical Association, the East Mississippi Medical Society, the Lauderdale County Medical Society and the Mississippi Hospital Association. He was a charter member of the American Legion and for one term was commander of the post at Booneville. He belonged also to the Masonic fraternity, Veterans of Foreign Wars and Woodmen of the World. He was a Shriner and served as vice-president of the Mississippi State Medical Association. Since 1923 he served as chief physician for the Masonic Home and for many years served as the pediatrician to the Matty Hersee Charity Hospital.^{2, 5, 7}

In October 1962, he was the recipient of a special award from the University of Tennessee College of Medicine for 50 years of distinguished service to



Figure 3. Franklin Gail Riley, M.D.

medicine.^{6, 7}

Dr. and Mrs. Riley were the parents of two children, William Gail Riley and Richard Franklin Riley. He encouraged each to study medicine. In 1940 he stated, "It is hoped that they will be able to graduate in medicine and carry on the work started by their father."

William Gail Riley graduated from Vanderbilt University School of Medicine, Nashville, in 1945. He served an internship in pediatrics at Johns Hopkins Hospital, Baltimore, Maryland. He then went on active military duty as a medical officer in the U.S. Army and served in the European theater for two years. Upon release from active military duty, he resumed his pediatric residency training. He spent one year at Children's Hospital of Philadelphia. He then completed residency training in pediatrics at Vanderbilt University Hospital. He then returned to Meridian, and joined his father and Riley Hospital in the private practice of pediatrics.

Richard Franklin Riley graduated from Vanderbilt University School of Medicine in 1948. He served an internship in surgery at the University of Virginia Hospital, Charlottesville. He then served as a medical officer in the United States Army and was stationed for two years in the European theater.

Upon release from active military service, he resumed his residency training at the University of Virginia. He completed residency training in general surgery there. He then returned to Meridian where he also joined Riley's Hospital in the private practice of surgery.

Drs. William and Richard Riley serve on the Board of Directors of the F. G. Riley Memorial Hospital.

Dr. Gail Riley was a complex person. He was ambitious, volatile and opinionated. Many of his colleagues regarded him as brilliant. He was driven to superhuman efforts to excel in his chosen field. He was devoted to his family. To others he at times seemed to be short and brusque in manner and to some he seemed difficult. For example, the form to which he was referred was illustrative. Not infrequently a parent, usually the father, or someone else would refer to him as "Doc." He would invariably stop what he was doing and say, "I have one request of you. Please do not call me 'Doc.' You may refer to me as Dr. Riley, Gail Riley or in any other fashion you wish except as 'Doc.'"

He was fiercely loyal to his friends, employees and staff. His opinion of someone was quickly made and once formed, for good or bad, was usually lasting. Those who did not keep their word to him or those he did not like might fall victim to his sharp tongue, which was not infrequently interspersed with profanity. He was independent and adhered vigorously to any view he adopted. His patients and their families were devoted to him. He was not in the least hesitant to criticize another physician if he thought that physician had not put forth his best effort in behalf of a patient. Those who did not like him respected him. He was a determined advocate of children.

In his later years Dr. Riley's health began to decline. He died of multi-organ system failure on April 5, 1967 at age 80 in the hospital which he founded.

An editorial in the *Meridian Star* on the day of his funeral stated, "Dr. Franklin Gail Riley was not only the first full-time specialist in the treatment of children's diseases in the state of Mississippi, but he also was among the pioneer pediatricians in the entire United States. Generations of Meridian children, this writer included, not only benefited from Dr. Riley's medical skill, but in addition, fondly

remember his kind and reassuring manner with his patients. Not only did Dr. Riley serve Meridian in his medical practice, but he also founded one of our outstanding institutions — the Riley Hospital, now in the process of major expansion. Dr. Riley was an excellent physician and citizen, of whom Meridian can be proud."¹⁸ ★★

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The President Speaking

The Battle for Tort Reform

W. LAMAR WEEMS, M.D.
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"As we now practice it, that system (tort) is too costly, too painful, too destructive, and too inefficient."

Hon. Warren Burger
Former Chief Justice
U.S. Supreme Court

The tort system is a hoary and venerable body of civil law which has been molded over hundreds of years of Western civilization. The fact of its survival in our modern legal code is testimony to the importance which has been accorded to it by many generations of lawmakers. Like an ecological system in nature, this product of the evolution of law is so complex and so delicately balanced that tampering with any of its provisions may have unexpected, far-reaching, and adverse social ramifications. Even so, the system is not sacrosanct. Other systems in our society, such as health care and private enterprise, are important as well. Many of these systems are currently endangered by a tort system which has developed serious distortions.

The Mississippi Trial Lawyers Association opposes legislation to change tort law, which is not surprising in view of the financial bonanza which it provides for plaintiff's attorneys. The MTLA president has asked each member to give \$10,000 to the association to help elect legislators who will "preserve the Civil Justice System." Their defense of the status quo is usually couched in such statesmanlike rhetoric, but much of what they say is cynical and self-serving. For a while we heard from them that the problem of malpractice litigation wouldn't exist if doctors would just stop committing malpractice. Now they have shifted attention to "rip offs" in the insurance industry. Both points have some validity, but neither gets to the heart of the problem. Trial lawyers like to portray themselves as defenders of the rights of the "little man." Such claims are unmitigated demagoguery. The average "little man" can't realistically expect to benefit in his lifetime from a damage suit. Most "little men," like all the rest of us, simply pay the cost of the high level of legal activity through higher prices and decreased availability of goods and services.

Experience has shown that MSMA cannot successfully negotiate with this group. Undoubtedly, most individual members of the Mississippi Trial Lawyers Association are able and honorable persons. However, as a group, and on this issue, they are our implacable enemy. Not only *our* enemy, but the enemy of business and industry, of consumers, of private philanthropy, and of society at large. Paradoxically, they are uniquely the enemy of the tort system itself, because their unrestrained exploitation of tort law has just about evoked enough public resentment to bring about its destruction.

Organized medicine is now squarely positioned as an adversary of the Trial Lawyers Association. The outcome of this political contest is very important to the future of medicine. The litigious climate which they have helped to create is destroying the practice of medicine as we have known it. Liability insurance premiums may be a good barometer of the severity of the problem, but the cost of insurance is not the most important manifestation of the disease. Altered practice patterns (defensive medicine), alienation in the relationships of doctors and patients, and demoralization of physicians may be counted in the long run as the most significant deleterious effects of the hostile legal environment. A siege mentality is developing in the medical profession which portends a decline in the commitment to high professional standards. The siege can only be lifted by legislative action. Physicians in large numbers (all of us) must become more ac-

"In order to win on this issue, we must have well defined and reasonable objectives and we must have allies."

tive and more resolute in the efforts to force these legislative changes to occur.

In order to win on this issue, we must have well defined and reasonable objectives and we must have allies. The staff and the Legislative Committee of MSMA are working hard to develop our legislative agenda. The AMA currently is sponsoring the "AMA/Speciality Society Medical Liability Project: A Coordinated Effort by America's Physicians to Address Professional Liability." Out of these and other activities by public and private groups should come better plans for risk management and for tort reform. Meantime, on the local front, MSMA is cultivating alliances with the hospital industry and business community to enhance our political effectiveness.

We have a good chance to win this battle, but we won't get the job done unless we can at least match the fervor of the Trial Lawyers. I would think that we would easily be able to do that. After all, they only have money at stake. We stand to lose our professional heritage as well.

Medico-Legal Brief

Court Upholds State Regs On Medical Staff Membership

The U.S. Court of Appeals for the Seventh Circuit has affirmed the denial of a request for a temporary injunction against implementation of a state regulation barring psychologists from membership on medical staffs of public and private hospitals.

The Illinois Psychological Association sought the injunction against the Illinois Department of Public Health and the Illinois Hospital Licensing Board. A regulation adopted in 1976 defines the hospital medical staff as consisting of Doctors of Medicine, Doctors of Osteopathy, Doctors of Dental Surgery, and Doctors of Podiatric Medicine. However, some hospitals believed the regulation meant only that anyone in those four categories who was given practice privileges in the hospital must be placed on the

hospital's medical staff, but other health professionals given practice privileges in the hospital could be given medical staff membership. In 1985, the state agency announced that it interpreted the regulation to mean that only persons in the four designated categories can be members of hospital medical staffs. Hospitals failing to obey this interpretation risk having their license revoked.

This interpretation would not prevent psychologists from having practice privileges in hospitals, but a psychologist will not be able to admit patients to the hospital or issue orders for treatment of patients in the hospital. Those privileges are reserved for members of the medical staff. The claimants assert that the interpretation denies them equal protection of the laws, deprives them of both property and liberty without due process of law, and violates the state's Administrative Procedure Act. The trial court denied the request for a temporary injunction on the basis that there appeared to be little chance of prevailing on the merits of the case.

BOOK REVIEW

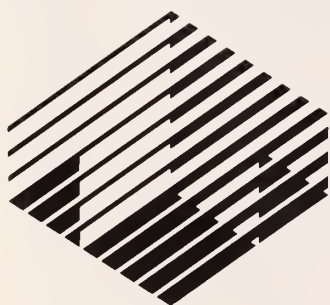
***We Are Not Alone.* Minneapolis, MN. Thompson & Co., Inc., 1986. \$17.00.**

We Are Not Alone is about 300 pages long and requires about three hours to read hastily. Ms. Sefra Pitzele published this workbook, subtitled, *Learning to Live with Chronic Illness*, when she was 43. Multiple sclerosis had caused such difficulties with most of her activities and her hopes as to provoke a plan for dealing with many problems common to chronic illness.

There are lists of kitchen aids, support groups, bibliography, glossary, appendix. . . . "Blessed are the Caregivers" is my favorite chapter as it develops concepts not often seen elsewhere. "A Whisper in the Night," Chapter 12, unabashedly places sexual limitations in proper perspective and suggests solutions.

I believe many persons with chronic illnesses can live better if they and at least a few friends read this handbook. It is not a text or a sermon, but a "how-to" guide. It contains practical material applicable to the majority of the over-65 crowd. Clinical psychologists and vocational counselors will find it worthwhile to keep as a reference and to lend to their patients.

RICHARD L. GEORGE, M.D.
Columbus, MS



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MEDICAL ORGANIZATION

Dr. Walter Gunn Installed As MAFP President

Dr. Walter D. Gunn of Quitman was installed as the 40th president of the Mississippi Academy of Family Physicians at the Academy's annual scientific assembly in Biloxi.

Dr. Charles A. Worley, immediate past vice president of the American Academy of Family Physicians, conducted the installation of Dr. Gunn and other MAFP officers, including: Dr. Malcolm S. Moore, Sr., of Tupelo, president-elect; Dr. George R. Bush of Laurel, vice president; and Dr. James R. Stingily of Hazlehurst, secretary-treasurer. Dr. Eugene Wood of Jackson was elected delegate and Dr. Stanley Hartness of Kosciusko, alternate delegate.

Five physicians were installed as directors, including: Dr. Robert H. Middleton of Biloxi; Dr. Joe Herrington of Natchez; Dr. Austin P. Boggan of Decatur; Dr. Matthew J. Page of Greenville; Dr. Robert B. Townes of Grenada.

Dr. James C. Waites of Laurel received the John B. Howell Memorial Award for Family Doctor of the Year. The MAFP Memorial Award was presented to Jacquelyn Clarke, a 1987 graduate of the Family Medicine Residency Program at the University of Mississippi Medical Center. Dr. Frank Wade received the Beville Award.

The scientific program featured seminars on stress, orthopedics, headache, peptic ulcer disease, antibiotic therapy, childhood respiratory diseases.

Founding members of the faculty at the University of Mississippi Medical Center were honored and received certificates of appreciation. Those attending were: Drs. Warren Bell of Jackson, James Hardy of Jackson, Blair Batson of Jackson, Michael Newton of Chicago, Lewis Sulya of Jackson, Thomas Blake of Jackson, and Herbert Langford of Jackson.

Three Appointed To UMC Faculty

Three have been named in appointments to the Schools of Medicine and Health Related Professions at the University of Mississippi Medical Center for the coming academic session.

Dr. Norman C. Nelson, vice chancellor for health affairs, announced the appointments following ap-

proval by the Board of Trustees of State Institutions of Higher Learning.

School of Medicine appointments included Dr. Kenneth B. Simon, assistant professor of surgery, and Dr. Joseph L. Wilson, instructor in medicine.

In the School of Health Related Professions, Ada M. Seltzer, director of the UMC Rowland Medical Library, was named assistant professor of medical record administration.

Dr. Simon, who earned the B.S.N. in 1976 at the University of Arizona, earned the M.D. in 1980 at Meharry Medical College. He did his internship and residency in surgery at Howard University Hospital followed by a residency in cardiovascular surgery in 1987 at the University of Alberta Hospitals. Dr. Simon was a staff nurse at Hubbard Hospital in Nashville, Tennessee from 1976-1979, and at the Children's Hospital of San Francisco, California from 1979-1980. He was on the faculty of the D. C. General Hospital at Howard University from 1985-1986, and has been on the medical staff at the Jackson Veterans Administration Medical Center since May of 1987.

Dr. Wilson earned the B.S. in 1978 at Mississippi State University and the M.D. in 1982 at the University of Mississippi Medical Center where he completed his residency in 1987.

Ms. Seltzer earned the B.S. in 1964 at Kutztown University of Pennsylvania, the M.S. in 1965 at Florida State University and the M.A. in 1971 at the University of South Florida (USF). She was an assistant librarian at USF from 1965-1968 and an associate librarian from 1969-1971. In 1971, she became the university librarian in the reference department of the Medical Center Library at the University of South Florida and then head of services to the public in 1974. Since 1979, she was the library's public services assistant director and visiting instructor for the USF School of Library Studies, and was director of public services at the USF Medical Center Library before her UMC appointment in 1986.

Next Month in JOURNAL MSMA

Regional Differences in Mississippi's Postneonatal Mortality, 1980-1983

Tumors of the Small Intestine: Review, Including a New Category Associated with AIDS

PERSONALS

WILLIAM M. ADEN of Jackson announces the association of ALBERT T. WILLIAMS for the practice of ophthalmology at 1421 North State Street.

JOHN MCCOMAS ALLGOOD announces the opening of the Family Medical Center, 5025 Park Street, in Moss Point.

JEFFREY A. AMBROSEK has associated with the Vicksburg Clinic for the practice of pathology.

V. JOHN BAGNATO has associated with the Surgery Clinic of Hattiesburg, 105 Asbury Circle, for the practice of general, vascular and thoracic surgery.

W. O. BARNETT of Jackson was in Miami to address nurses and physicians at University of Miami Hospital and Clinic on the continent intestinal reservoir procedure.

BLAIR BATSON of UMC was examiner for the American Board of Pediatrics in Raleigh, North Carolina.

JAMES MICHAEL BEASLEY has associated with Internal Medicine Clinic of Laurel, 1203 Jefferson Street, for the practice of internal medicine.

FREDA MCKISSIC BUSH has associated with LeFleur Ob-Gyn Associates, 1405 North State Street, Suite 302, for the practice of obstetrics and gynecology.

GEORGE R. BUSH of Laurel has been named to the board of directors of the Mississippi Foundation for Medical Care.

C. RON CANNON of Jackson has been inducted as a fellow of the American Academy of Facial Plastic and Reconstructive Surgery.

GARY D. CARR has established his family medicine practice at Tremont Medical Clinic, Highway 78 in Tremont.

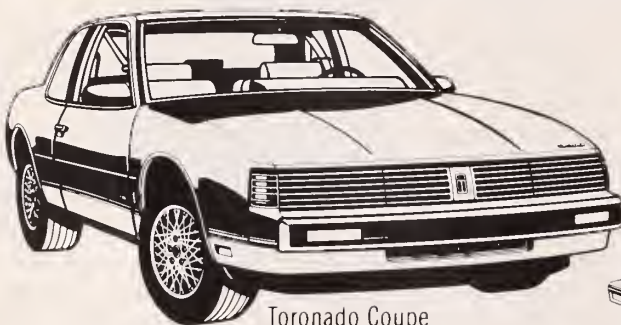
C. J. CHEN of UMC made a presentation at the MidSouth Regional Retina Meeting in New Orleans in May.

TOMMY COBB has associated with Starkville Clinic for Women, 107 Doctors' Park, for the practice of obstetrics and gynecology.

J. HAROLD CONN of UMC has been named professor emeritus of surgery at the medical center.

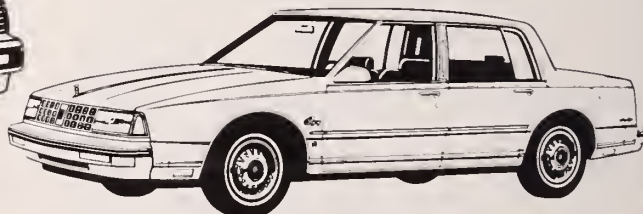
BRYAN COWAN of UMC presented grand rounds at Keesler Air Force Base and made a presentation at the Mississippi Ob-Gyn Society in Biloxi.

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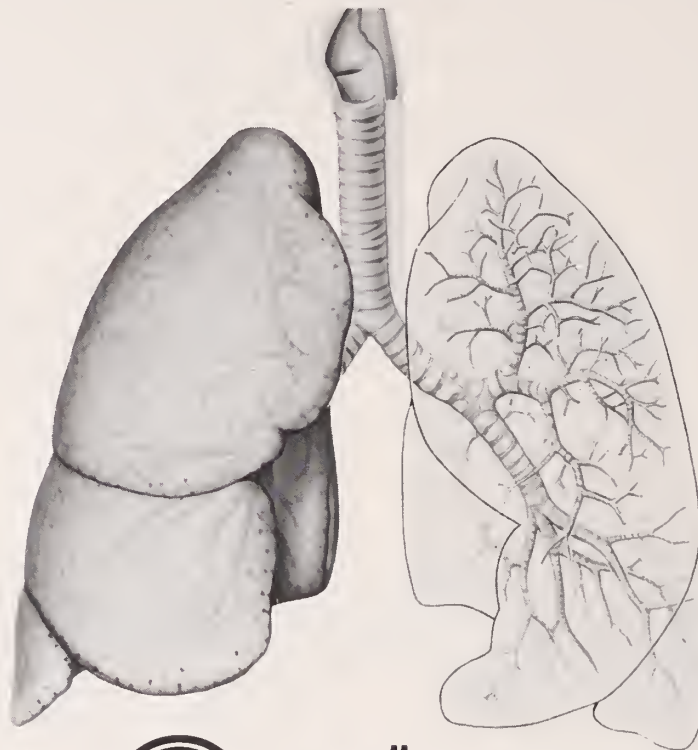


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Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Ceclor[®] (cefactor)

Summary. Consult the package literature for prescribing information.

Indications: Lower respiratory infections, including pneumonia, caused by susceptible strains of *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A β -hemolytic streptococci).

Contraindication:
Known allergy to cephalosporins.

Warnings:

CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients. Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever): 1.5%, usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness,

insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.

- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistest[®] tablets but not with Tes-Tape[®] (glucose enzymatic test strip, Lilly).

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JAMES M. CUMMINGS announces the opening of his office for the practice of adult and pediatric urology at Doctor's Plaza, Suite 104, in Corinth.

C. RALPH DANIEL, III of Jackson has been elected president of the Mississippi Dermatological Society.

ROY D. DUNCAN of Pascagoula has been appointed to the board of directors of the Mississippi Foundation for Medical Care.

JOHN EVANS of Laurel presented a film of his recent mission trip to Haiti at a meeting of the Rotary Club.

JAN L. FURNISS has associated with the Women's Clinic, 1967 Hospital Drive in Columbus, for the practice of obstetrics and gynecology.

DON K. GADDY has associated with the Gulfport Obstetrics and Gynecology Clinic, 4502 15th Street, for the practice of infertility, obstetrics and gynecology.

KENNETH RAY GRIFFIS, JR. has associated with the Hull-Cook Clinic of Obstetrics and Gynecology at 1044 North Flowood Drive in Jackson.

STEVEN T. HAYNE of Brandon has been appointed acting medical examiner for the State of Mississippi.

JAMES HUGHES of UMC was guest lecturer at the Southern Orthopedic Association meeting in Bermuda in May.

KELLY HUTCHINS of Laurel has been elected president of the Mississippi Association of Pathologists.

JOSEPH E. JOHNSTON of Mount Olive has been elected to serve a five-year term as the AAFP's representative on the board of directors of the American Board of Family Practice. He also has been named a member of the board of directors of the Mississippi Foundation for Medical Care.

ROBERT JORDEN of UMC was guest lecturer for the 10th annual Education Conference of the National Association of EMTs in Biloxi.

HERBERT LANGFORD recently was consultant for NIH in Bethesda, Maryland, presented a paper at the third European Meeting on Hypertension in Milan, Italy, and was guest speaker at the Vienna School of Medicine in Vienna, Austria.

GREG S. MARANTO has associated with Rush Medical Group, 1800 12th Street in Meridian, for the practice of pediatrics and adolescent medicine.

ROBERT PHILLIPS MATHIS has associated with Surgery Associates, 850 South Madison Street in Tupelo, for the practice of general and vascular surgery.

CONNIE McCAA of UMC spoke at the Ophthalmic Spring Meet in Louisville, Kentucky, in May.

RANDOLPH M. McCLOY and ROBERT S. WOOTEN announce the opening of their office at 2169 South Lamar in Oxford for the practice of gastroenterology and diagnostic and therapeutic endoscopy.

WILLIAM M. McKELL has assumed the practice of LARRY M. MITCHELL and will practice internal medicine and gastroenterology at 3701 Jefferson Street in Pascagoula.

RICHARD MILLER of UMC lectured at a meeting of the Pediatric Oncology Group in Cleveland, Ohio.

PAUL MINK of Kosciusko recently was honored with a retirement reception.

RODERICK G. NEWELL has associated with South Central Medical Clinic, 866 Medical Plaza Street in Jackson, for the practice of family medicine.

PRINTING — OFFICE SUPPLIES

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PRAVIN P. PATEL announces the opening of his office for the practice of family medicine in Coldwater.

JEANNETTE PULLEN of UMC presented a paper at the annual meeting of the American Society of Clinical Oncology in Atlanta.

LYNDON H. PERKINS has associated with Internal Medicine Associates of Tupelo, 845 South Madison Street, for the practice of pulmonary medicine.

Radiology of Tupelo, 913 Garfield Street, announces the association of JAMES WILSON BOYD for the practice of diagnostic radiology and C. MICHAEL CURRIE for the practice of neuro-radiology.

SESHADRI RAJU of UMC attended a board of directors meeting for the Southeastern Organ Procurement Foundation in Richmond, Virginia.

ROBERT D. RESTER of Pearl announces that WILLIAM F. KROOSS has assumed his practice of family medicine.

LEE SCOTT has associated with the Vicksburg Clinic for the practice of pediatrics.

WAYNE A. SLOCUM has associated with Obstetrics-Gynecology Associates, 607 Brunson Drive in Tupelo, for the practice of obstetrics and gynecology.

HORTON G. TAYLOR, JR. of Ripley announces the association of TROY R. CAPPLEMAN for the practice of family medicine at the Tippah County Medical Group, 111 West First Street.

BARRY F. TILLMAN has associated with the Tillman Medical Group in Natchez for the practice of pulmonary medicine, respiratory allergy and internal medicine.

FRANK C. WADE, JR. has associated with the Medical and Surgical Clinic of Magee for the practice of family medicine at the Mize Clinic, Highway 28 in Mize.

PERRY WALLACE announces the opening of his office for the practice of internal medicine at 2311 4th street in Meridian.

EVAN H. WOOD has associated with Garden Park Outpatient Clinic at Norwood Village Shopping Center in Gulfport for the practice of obstetrics and gynecology.

C. K. VYAS has associated with the Heart Center, 216 South 13th Avenue in Laurel, for the practice of cardiology and internal medicine.

Review A Book

Members of MSMA interested in reviewing any of these volumes should address requests to Editor, JOURNAL MSMA. After submitting a review for publication, you may keep the book for your personal library.

Kill as Few Patients as Possible And Fifty-Six Other Essays On How To Be The World's Best Doctor. Oscar London, M.D. Berkeley, California: Ten Speed Press, 1987. \$7.95.

Sickle-Cell Anemia and Thalassemia: A Primer for Health Care Professionals. R. G. Huntsman, M.D. Rexdale, Ontario, Canada: Canadian Sickle Cell Society, 1987. \$10.00.

Primary Care of Cancer: Recommendations for Screening, Diagnosis and Management. Edward A. Mortimer, M.D. Cleveland, Ohio: Case Western Reserve University, 1987. \$15.00.

Neurology: Problems in Primary Care. James L. Bernat, M.D. and Frederick M. Vincent, M.D. Oradell, New Jersey: Medical Economics Books, 1987.

Neuroanatomy: An Atlas of Structures, Sections and Systems. Duane E. Haines, Ph.D. Baltimore, Maryland: Urban & Schwarzenberg, 1987. \$22.50.

Patient Information Brochures/Services Available from MSMA

- "CommuniCare" Brochures
- Health Care Cost Brochures
- Patient Survey Forms
- "Changes in Health Care: What Your Family Should Know"
- AIDS Speakers Bureau

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DEATHS

BASS, ROSS F., Jackson. Born Collins, MS, Aug. 2, 1920; M.D., Tulane University School of Medicine, New Orleans, 1944; interned one year, U.S. Navy Hospital, Chelsea, MA; ob-gyn residency, Tulane University Hospital, New Orleans, 1948-51; died July 27, 1987, age 66.

GOWAN, HUGH LEE, Pickens. Born Thomastown, MS, Aug. 29, 1920; M.D., University of Tennessee School of Medicine, Memphis, 1950; interned one year, Charity Hospital, New Orleans; died July 8, 1987, age 66.

NEW MEMBERS

BOOKER, JOSEPH, JR., Gulfport. Born Pennsylvania, Feb. 15, 1944; M.D., University of California School of Medicine, San Francisco, 1973; interned one year, Kaiser Hospital, Oakland, CA; ob-gyn residency, same, 1974-76, and Martin Luther King Hospital, Los Angeles, 1976-78; elected by Coast Counties Medical Society.

CAMPBELL, JOE HAND, JR., Hattiesburg. Born Hattiesburg, MS, Dec. 11, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1984; interned and anesthesiology residency, University of Texas Medical Branch, Galveston, 1984-87; elected by South Mississippi Medical Society.

CRITTENDEN, JAMES C., Bay St. Louis. Born Greenville, MS, July 20, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and internal medicine residency, University Medical Center, Jackson, 1979-81; and medicine residency, Methodist Hospital, Memphis, TN, 1981-1982; elected by Coast Counties Medical Society.

DEAN, PHILIP COLEMAN, Gulfport. Born Charlottesville, VA, Aug. 29, 1957; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned one year, University Medical Society, Jackson; pediatric residency, University of South Alabama Medical Center, Mobile, 1983-86; elected by Coast Counties Medical Society.

GASKIN, HUBERT S., III, Vicksburg. Born Ft. Bragg, NC, Aug. 25, 1951; M.D., Meharry Medical College, Nashville, TN., 1977; internal medicine residency, Hubbard Hospital, Nashville, 1977-80; elected by West Mississippi Medical Society.

HUNT, MARION GLENN, Oxford. Born Jackson, MS, Sept. 24, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and ob-gyn residency, University Medical Center, Jackson, 1982-87; elected by North Mississippi Medical Society.

JUNG, LEE, Vicksburg. Born New York, NY Sept. 15, 1948; M.D., State University of New York Downstate College of Medicine, Brooklyn, 1982; interned and internal medicine residency, State University Kings County Hospital Center, Brooklyn, 1982-85; elected by West Mississippi Medical Society.

O'DONNELL, JAMES A., JR., Laurel. Born Memphis, TN, Dec. 28, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and emergency medicine residency, University Medical Center, Jackson, 1978-81, elected by South Mississippi Medical Society.

POLLES, ALEXANDRIA G., Hattiesburg. Born Clarksdale, MS, Sept. 25, 1953; M.D., Tulane University School of Medicine, New Orleans, 1981; interned one year, Ochsner Foundation Hospital, New Orleans; emergency medicine residency, Charity Hospital of Louisiana, New Orleans, 1982-84; elected by South Mississippi Medical Society.

TILTON, FRANK M., Greenville. Born Kansas City, MO, Nov. 17, 1933; M.D., University of Louisville School of Medicine, Louisville, KY, 1959; interned one year, University of Kansas Medical Center, Kansas City, KS; neurology residency, Cleveland Clinic, Cleveland, OH, 1964-68; elected by Delta Medical Society.

POSTGRADUATE CALENDAR

ADVANCED TRAUMA LIFE SUPPORT PROVIDER COURSE

Nov. 13-14

University Medical Center, Jackson

PEDIATRIC ANNUAL MEETING

Nov. 21-22

University Medical Center, Jackson

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WARNINGS

- Cardiac Conduction.** CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (six of 1,243 patients for 0.48%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
- Congestive Heart Failure.** Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dP/dt). Experience with the use of CARDIZEM alone or in combination with beta-blockers in patients with impaired ventricular function is very limited. Caution should be exercised when using the drug in such patients.
- Hypotension.** Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
- Acute Hepatic Injury.** In rare instances, significant elevations in enzymes such as alkaline phosphatase, CPK, LDH, SGOT, SGPT, and other symptoms consistent with acute hepatic injury have been noted. These reactions have been reversible upon discontinuation of drug therapy. The relationship to CARDIZEM is uncertain in most cases, but probable in some. (See PRECAUTIONS.)

PRECAUTIONS

General. CARDIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any new drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic

function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued. In dogs, doses of 20 mg/kg were also associated with hepatic changes; however, these changes were reversible with continued dosing.

Drug Interaction. Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM. (See WARNINGS.)

Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated. Available data are not sufficient, however, to predict the effects of concomitant treatment, particularly in patients with left ventricular dysfunction or cardiac conduction abnormalities. In healthy volunteers, diltiazem has been shown to increase serum digoxin levels up to 20%.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in *in vitro* bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women; therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. Diltiazem is excreted in human milk. One report suggests that concentrations in breast milk may approximate serum levels. If use of CARDIZEM is deemed essential, an alternative method of infant feeding should be instituted.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded.

In domestic placebo-controlled trials, the incidence of adverse reactions reported during CARDIZEM therapy was not greater than that reported during placebo therapy.

The following represent occurrences observed in clinical studies which can be at least reasonably asso-

ciated with the pharmacology of calcium influx inhibition. In many cases, the relationship to CARDIZEM has not been established. The most common occurrences as well as their frequency of presentation are: edema (2.4%), headache (2.1%), nausea (1.9%), dizziness (1.5%), rash (1.3%), asthenia (1.2%). In addition, the following events were reported infrequently (less than 1%):

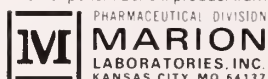
Cardiovascular:	Angina, arrhythmia, AV block (first degree), AV block (second or third degree — see conduction warning), bradycardia, congestive heart failure, flushing, hypotension, palpitations, syncope.
Nervous System:	Amnesia, gait abnormality, hallucinations, insomnia, nervousness, paresthesia, personality change, somnolence, tinnitus, tremor.
Gastrointestinal:	Anorexia, constipation, diarrhea, dysgeusia, dyspepsia, mild elevations of alkaline phosphatase, SGOT, SGPT, and LDH (see hepatic warnings), vomiting, weight increase.
Dermatologic:	Petechiae, pruritus, photosensitivity, urticaria.
Other:	Amblyopia, dyspnea, epistaxis, eye irritation, hyperglycemia, nasal congestion, nocturia, osteoarthricular pain, polyuria, sexual difficulties.

The following postmarketing events have been reported infrequently in patients receiving CARDIZEM: alopecia, gingival hyperplasia, erythema multiforme, and leukopenia. However, a definitive cause and effect between these events and CARDIZEM therapy is yet to be established. Issued 9/86

See complete Professional Use Information before prescribing.

References: 1. Pepine CJ, Feldman RL, Hill JA, et al: Clinical outcome after treatment of rest angina with calcium blockers: Comparative experience during the initial year of therapy with diltiazem, nifedipine, and verapamil. *Am Heart J* 1983; 106(6): 1341-1347. 2. Shapiro W: Calcium channel blockers: Actions on the heart and uses in ischemic heart disease. *Consultant* 1984; 24(Dec): 150-159. 3. Johnston DL, Lesoway R, Humen DP, et al: Clinical and hemodynamic evaluation of propranolol in combination with verapamil, nifedipine and diltiazem in exertional angina pectoris. A placebo-controlled, double-blind, randomized, crossover study. *Am J Cardiol* 1985; 55: 680-687. 4. Cohn PF, Braunwald E: Chronic ischemic heart disease, in Braunwald E (ed): *Heart Disease: A Textbook of Cardiovascular Medicine*, ed 2. Philadelphia, WB Saunders Co, 1984, chap. 39. 5. Schroeder JS: Calcium and beta blockers in ischemic heart disease. When to use which. *Mod Med* 1982; 50(Sept): 94-116.

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The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

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Caution patients about the combined effects of Limbitrol with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as operating machinery or driving a car. In general, limit dosage to the lowest effective amount in elderly patients.


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References: 1. Feighner JP, et al. *Psychopharmacology* 61:217-225, Mar 22, 1979. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ

Limbitrol[®] Tranquiliizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAD) inhibitors or within 14 days following discontinuation of MAD inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady state concentrations of the tricyclic drugs. Concomitant use of Limbitrol with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring

reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extra-pyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt). Available in bottles of 100 and 500, Tel-E-Dose[®] packages of 100, Prescription Paks of 50.



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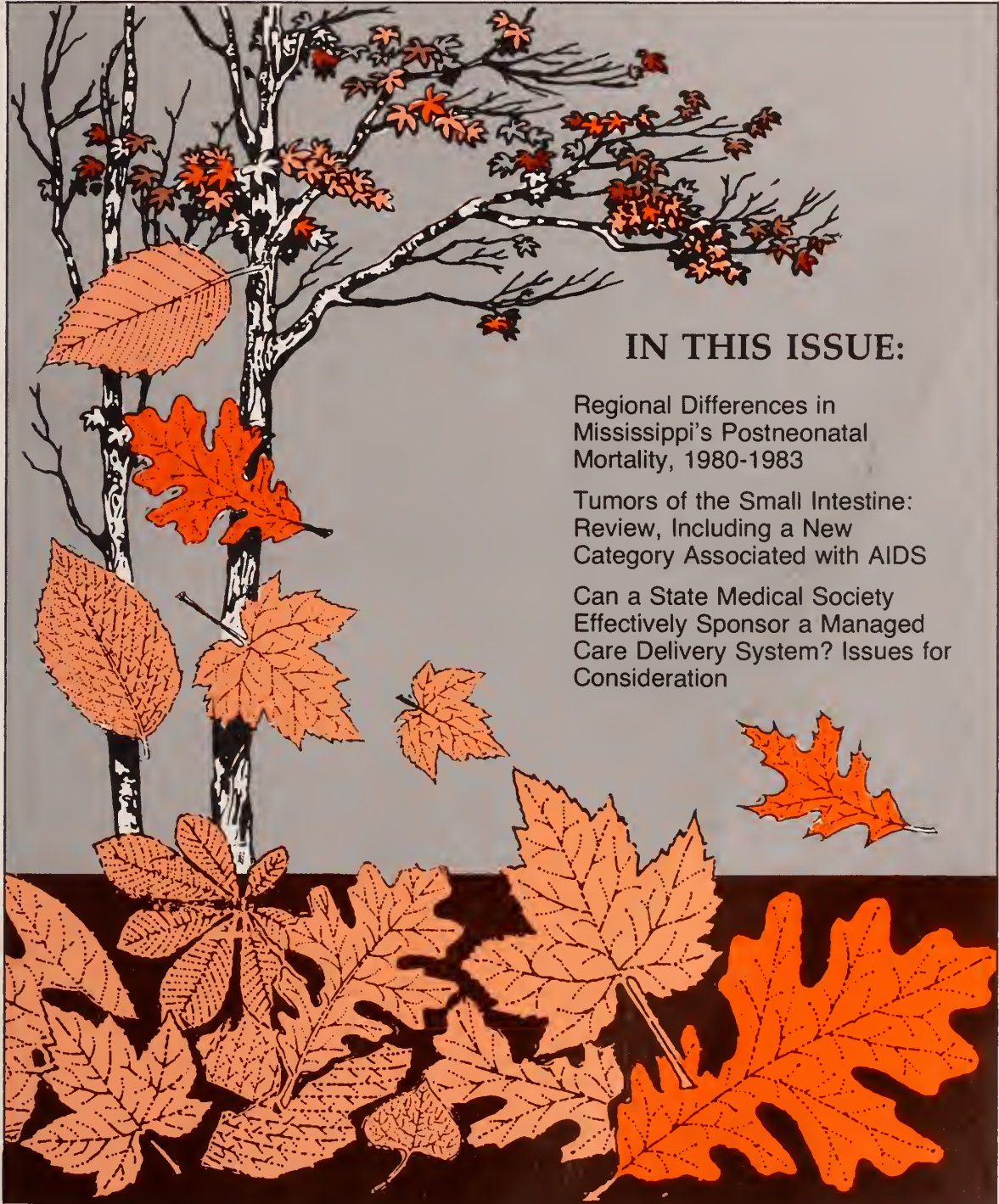
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OCTOBER

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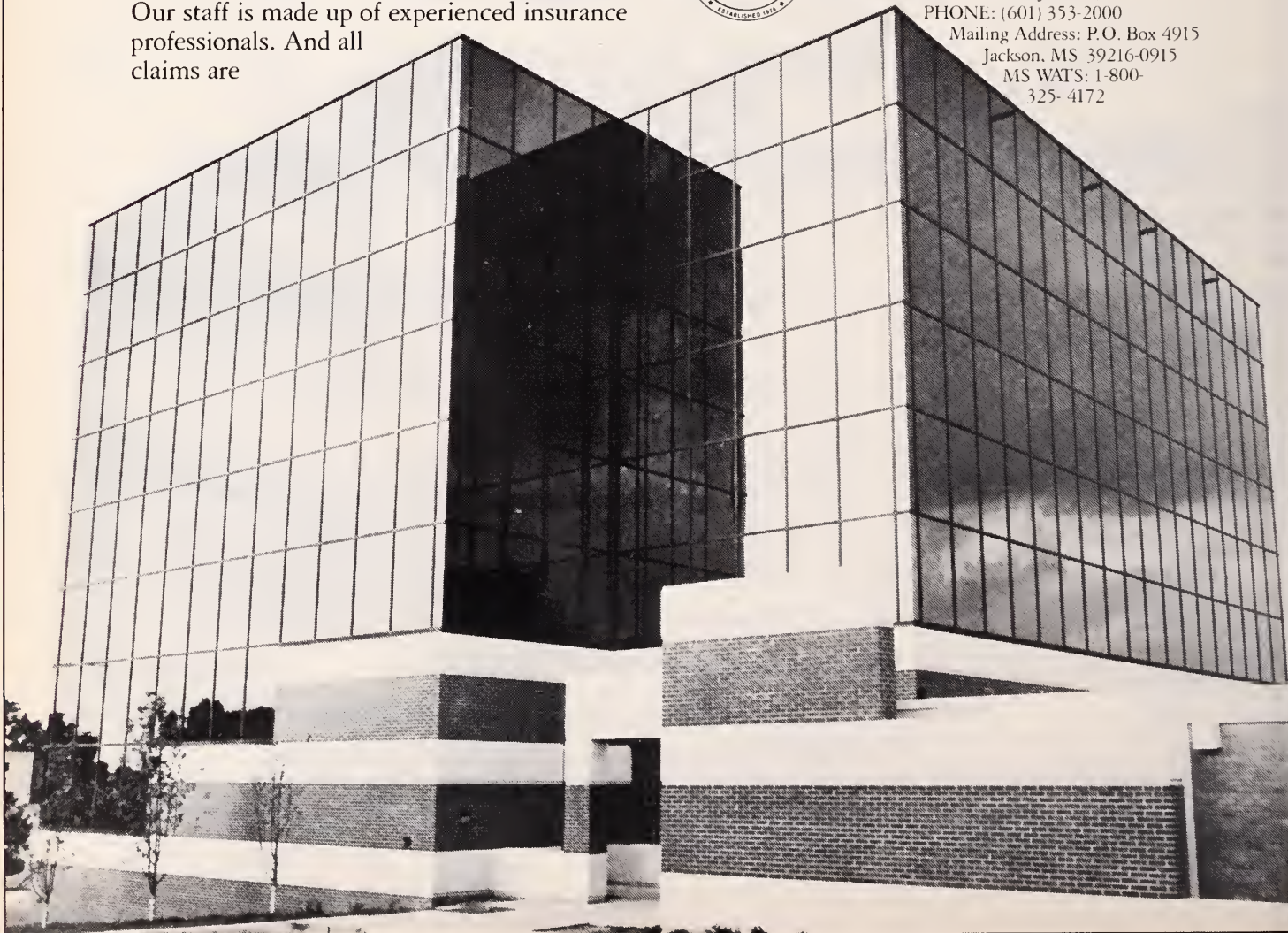
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NEWSLETTER

October 1987

Dear Doctor:

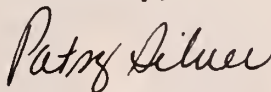
Elderly people concerned about the future of Medicare and Social Security are targets of fraudulent and questionable fund-raising groups, according to Direct Marketing Association, which monitors mail solicitations. Official-looking documents and scare tactics have been used to solicit tens of millions in contributions for alleged lobbying activities to "preserve" Medicare or Social Security.

These organizations masquerade as government agencies using titles like "official" or "national" and incorporating the words "Social Security" or "Medicare." Solicitations often arrive in envelopes similar to Social Security check envelopes bearing a symbol resembling the U.S. official seal. Some even say, "Buy U. S. Saving Bonds." Many take the form of a sweepstakes offer requiring an entry fee or a premium notice for "insurance policies" to safeguard the policyholder's Social Security or Medicare benefits. Reports about questionable mailings or fraudulent solicitations may be made to the Chief Postal Inspector, U.S. Postal Service, Washington, DC.

At press time MSMA was seeking another hearing on an Ethics Commission ruling that could force physicians to resign from governing boards of publicly financed hospitals. In making its ruling, the Commission cited Section 109 of the Constitution of 1890, which prohibits public officials from contracting with public agencies for which they serve. The association has pointed out that a Supreme Court opinion established that a physician, just by holding staff privileges, is not under contract to a hospital.

REMINDER: Your MSMA membership dues statements are in the mail. Please remember to pay your spouse's Auxiliary dues when you pay your own MSMA/AMA dues.

Sincerely,



Patsy Silver
Managing Editor

MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 26-30, 1988, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 120th Annual Session, June 15-19, 1988, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 27-30, 1988, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrick, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. R. Ray Lyle, Secy., P.O. Box 1507, Starkville, MS 39759. Counties: Clay, Oktibbeha,

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly
Mississippi State Medical Association
735 Riverside Drive
Jackson, MS 39202

North Mississippi Medical Center
830 Gloster Avenue
Tupelo, MS 38801

Forrest General Hospital
Box 1897
Hattiesburg, MS 39401

Mississippi Baptist Medical Center
1225 N. State Street
Jackson, MS 39201

Gulf Coast Community Hospital
4642 W. Beach Boulevard
Biloxi, MS 39531

Jefferson Davis Memorial Hospital
Box 1488
Natchez, MS 39120

King's Daughter Hospital
Box 948
Brookhaven, MS 39601

Riverside Hospital
Lakeland Drive
Jackson, MS 39208

Biloxi Regional Medical Center
1559 Lafayette St.
Biloxi, MS 39533

Jeff Anderson Regional Medical Center
2124 14th St.
Meridian, MS 39301

Northwest Mississippi Regional Medical Center
Box 1218
Clarksdale, MS 38614

North Panola County Hospital
Drawer 160
Sardis, MS 38666

Singing River Hospital
P.O. Box 112
Pascagoula, MS 39567

Magnolia Hospital
Alcorn Drive
Corinth, MS 38834

Greenwood Leflore Hospital
1508 Leflore Avenue
Greenwood, MS 38930

Gulfport Memorial Hospital
4500 13th Street
Gulfport, MS 39501

Oxford-Lafayette County Hospital
P.O. Box 946
Oxford, MS 38655

St. Dominic-Jackson Memorial Hospital
969 Lakeland Dr.
Jackson, MS 39216

Delta Medical Center
P.O. Box 5247
Crossroads Station
Greenville, MS 39704-5247

Methodist Hospital
P.O. Box 1311
Hattiesburg, MS 39401

To show you how many
hypertensives stayed on

INDERAL[®] LA
(PROPRANOLOL HCl)

after a major nationwide trial...



An aerial photograph of a large, modern stadium at dusk. The stadium is filled with spectators, and the soccer field is brightly lit. The surrounding area includes a river, residential neighborhoods, and distant mountains under a twilight sky. The text "...we had to find just the right room." is overlaid in the upper center of the image.

...we had
to find
just the
right room.

60,073 patients (90%) who started on INDERAL LA stayed on INDERAL LA!^{1*}

Surprising? Not really.

Because most patients on INDERAL LA (propranolol HCl) don't even know it's working.

A recent double-blind, placebo-controlled, crossover study in 138 hypertensive patients² revealed that INDERAL LA has a side effects profile unsurpassed by atenolol or metoprolol — which shows how well-tolerated once-daily INDERAL LA can be.

Sole therapy or concomitant therapy?

Fifty-nine percent of the time, INDERAL LA stood on its own.

The patients in the nationwide compliance trial were no different from yours. Generally when the antihypertensive regimen is complicated, compliance may become a problem. So, the effectiveness of INDERAL LA as once-daily monotherapy is a big plus. Of the remaining hypertensives in the program, 36% were treated merely with the addition of a diuretic to INDERAL LA.

For the noncompliant patients in your practice, INDERAL LA may well be the answer.

Almost 20,000 of the patients in the nationwide compliance trial were identified as having been noncompliant with their previous antihypertensive therapy. Their physicians reported that 88% showed improved compliance when placed on once-daily INDERAL LA.

Control, comfort, and compliance

ONCE-DAILY
INDERAL[®] LA
(PROPRANOLOL HCl) LONG ACTING CAPSULES

Like conventional INDERAL Tablets, INDERAL LA should not be used in the presence of congestive heart failure, sinus bradycardia, cardiogenic shock, heart block greater than first degree, and bronchial asthma.

*After a 30-day trial with INDERAL LA, physicians reported that 90% of the patients would remain on INDERAL LA.

**The one you know best
keeps looking better**



Please see next page for brief summary of prescribing information

The one you know best keeps looking better

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION SEE PACKAGE CIRCULAR)

INDERAL® LA brand of propranolol hydrochloride (Long Acting Capsules)

DESCRIPTION. INDERAL LA is formulated to provide a sustained release of propranolol hydrochloride. INDERAL LA is available as 60 mg, 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. INDERAL is a nonselective beta-adrenergic receptor-blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor-stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by INDERAL, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (60, 80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with INDERAL LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of INDERAL Tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

INDERAL LA should not be considered a simple mg-for-mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to INDERAL LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, INDERAL LA has been therapeutically equivalent to the same mg dose of conventional INDERAL as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. INDERAL LA can provide effective beta blockade for a 24-hour period.

INDICATIONS AND USAGE. **Hypertension:** INDERAL LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first-degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.

WARNINGS. **CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned, the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it is usually advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema) — PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, eg, dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA. Beta blockers should be used with caution in diabetic patients if a beta-blocking agent is required. Beta blockers may mask tachycardia occurring with hypoglycemia, but other manifestations such as dizziness and sweating may not be significantly affected. Following insulin-induced hypoglycemia, propranolol may cause a delay in the recovery of blood glucose to normal levels.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol may change thyroid function tests, increasing T_4 and reverse T_3 and decreasing T_3 .

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case, this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. **GENERAL.** Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenergic receptor blockade can cause reduction of intraocular pressure. Patients should

be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Caution should be exercised when patients receiving a beta blocker are administered a calcium-channel-blocking drug, especially intravenous verapamil, for both agents may depress myocardial contractility or atrioventricular conduction. On rare occasions, the concomitant intravenous use of a beta blocker and verapamil has resulted in serious adverse reactions, especially in patients with severe cardiomyopathy, congestive heart failure or recent myocardial infarction.

Aluminum hydroxide gel greatly reduces intestinal absorption of propranolol.

Ethanol slows the rate of absorption of propranolol.

Phenyltoin, phenobarbital, and rifampin accelerate propranolol clearance.

Chlorpromazine, when used concomitantly with propranolol, results in increased plasma levels of both drugs.

Antipyrine and lidocaine have reduced clearance when used concomitantly with propranolol.

Thyroxine may result in a lower than expected T_3 concentration when used concomitantly with propranolol.

Cimetidine decreases the hepatic metabolism of propranolol, delaying elimination and increasing blood levels.

Theophylline clearance is reduced when used concomitantly with propranolol.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing dosages up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. INDERAL is excreted in human milk. Caution should be exercised when INDERAL (propranolol HCl) is administered to a nursing woman.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System. Light-headedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to cataplexy, visual disturbances, hallucinations, vivid dreams, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics. For immediate formulations, fatigue, lethargy and vivid dreams appear dose related.

Gastrointestinal. Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory. Bronchospasm.

Hematologic. Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura. **Auto-Immune.** In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL Tablets to INDERAL LA Capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg-for-mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary, especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION — Dosage must be individualized. The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood-pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS — Dosage must be individualized. Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three- to seven-day intervals until optimal response is obtained. Although individual patients may respond at any dosage level, the average optimal dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE — Dosage must be individualized. The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimal migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximal dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS — 80-160 mg INDERAL LA once daily. **PEDIATRIC DOSAGE —** At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

*The appearance of these capsules is a registered trademark of Ayerst Laboratories.

REFERENCES:

1. INDERAL LA National Compliance Evaluation Program. Data on file, Ayerst Laboratories.
2. Ravid M, Lang R, Jutrin I. The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985; 145:1321-1323.

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Announcing The Opening Of Our Imaging & Outpatient Center.

In September, we officially opened the new Hinds General Hospital Imaging & Outpatient Center, a major, 12,000-square-foot commitment to the Technology of CaringSM

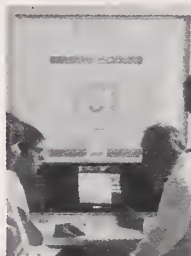
This new Center represents a nearly \$5 million investment that houses our General Electric Signa MRI System and Varian Clinac[®] 1800 linear accelerator, as well as Hinds General's centralized

registration of outpatient services.

Nearly two years in the development, our new Imaging & Outpatient Center represents another major step in Hinds General Hospital's evolution as a major healthcare provider to Jackson and central Mississippi.

For more information on our new facility, contact Robert G. Wilson, Administrator.

Hinds General Hospital. Where the Technology of Caring means one thing: HindsCare.



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DATELINE

Flexible Benefits Plan Offered MSMA Members

Jackson, MS - MSMA is offering a flexible benefit plan (cafeteria plan) to members and their employees. Flex plans permit employees to use pre-tax income to purchase health care, child care, and other benefits; employers in turn see a reduction in social security and other payroll taxes. MSMA is marketing the flex plan to those members who responded to a survey on the program earlier this summer.

MSMA Proposes Senior Care Program

Jackson, MS - MSMA members are being notified about a proposed new project called Senior Care Program. The association is considering adopting the program, which would be carried out in cooperation with Miss. Chapter, American Association of Retired Persons. The program is designed to assist physicians in identifying Medicare patients who need acceptance of assignment as payment in full for medical services.

Commission Grants 29% Increase to St. Paul

Jackson, MS - The Mississippi Insurance Commission granted a 29% rate increase to St. Paul instead of the requested 45%. The three-member commission voted 2-0 to grant the reduced increase. At press time St. Paul had not announced whether it would accept the offer or cancel its coverage in Mississippi. The increase would be the company's fifth in three years, causing premiums to rise 127% since 1984.

Seminar for CME Directors

Jackson, MS - MSMA and the Louisiana State Medical Society are co-sponsoring a CME conference, "The Changing Face of CME," on Friday, October 30, at East Jefferson General Hospital in Metairie, LA. Dr. Eric McVey, medical director, Miss. Baptist Medical Center and chairman, MSMA Council on Medical Education, is a participant. For more information, contact MSMA headquarters.

AMA Teleconferences Scheduled on HSN

Chicago, IL - You may want to put on your calendar these two AMA teleconferences - "Alternative Delivery Systems Contracting: Risks and Opportunities" (Nov. 5) and "Adolescent Suicide: The Silent Epidemic" (Nov. 17). For more information about the teleconferences, which can be viewed at any hospital subscribing to the Hospital Satellite Network (HSN), call 1-800-624-5860.

WHAT TO TELL YOUR PATIENTS ABOUT SEXUAL IMPOTENCE:

HELP IS AVAILABLE.

If you have patients who are suffering from sexual impotence, tell them about the Impotence Evaluation Program at AMI Garden Park Community Hospital.


The Impotence Evaluation Program can help you help your patients. The two-day testing program is designed to identify the psychological or physical causes of impotence and to chart an appropriate course of treatment. Tests are administered by a specially trained staff under close supervision of expert physicians. As the referring professional, you will receive complete reports and treatment recommendations. You'll have the information you'll need to evaluate treatment alternatives. And you'll have a

resource for psychological counseling, sex therapy and surgical implantation procedures—AMI Garden Park Community Hospital.

A referral to the Impotence Evaluation Program is one you can make with complete confidence. And your patients can be sure that their participation in the program will be completely confidential.

You can help sexually impotent patients through the Impotence Evaluation Program at AMI Garden Park Community Hospital.

Call Nurse Rose Bohannon at 1-800-433-7957 (outside Mississippi) or 1-800-345-6921 (inside Mississippi) for a brochure or for more information about referrals.

 **AMI® Garden Park
Community Hospital**

The Impotence Evaluation Program

AMI Garden Park Community Hospital • 1520 Broad Avenue • Gulfport, Mississippi 39501



**Depressed and anxious,
she's sitting out life
instead of living it**

From "looking"..



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to "living"..



FOR FAST RELIEF OF MODERATE DEPRESSION AND ANXIETY
See the difference in the first week¹

Limbitrol[®]

Each tablet contains 5 mg clordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) 

Limbitrol[®] DS

Each tablet contains 10 mg clordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) 

PROTECT YOUR DECISION. WRITE "DO NOT SUBSTITUTE."

Please see summary of product information on adjacent page.

FROM LOOKING...TO LIVING...

to smiling again!

The rewards of Limbitrol

In moderate depression and anxiety:

- Rapid results—62% of total four-week improvement within a week versus 44% with amitriptyline¹
- Earlier relief of associated somatic complaints²
- Fewer dropouts due to side effects—only 1/3 the rate of those patients taking amitriptyline, although the incidence of side effects is comparable¹
- Fast improvement with less amitriptyline—1/3 to 1/2 the dose of patients taking amitriptyline alone³

Caution patients about the combined effects of Limbitrol with alcohol or other CNS depressants and about activities requiring complete mental alertness, such as operating machinery or driving a car. In general, limit dosage to the lowest effective amount in elderly patients.



SEE THE DIFFERENCE IN THE FIRST WEEK¹

Limbitrol[®]

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) ^{IV}

Limbitrol[®] DS

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) ^{IV}

PROTECT YOUR DECISION. WRITE "DO NOT SUBSTITUTE."

References: 1. Feighner JP, et al. *Psychopharmacology* 61: 217-225, Mar 22, 1979. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Dixon R, Cohen J. *J Clin Psychopharmacol* 3:107-109, Apr 1983.

Limbitrol[®] ^{IV} Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady state concentrations of the tricyclic drugs. Concomitant use of Limbitrol with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestations and treatment.

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How Supplied: Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt). Available in bottles of 100 and 500; Tel-E-Dose[®] packages of 100; Prescription Paks of 50.



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ORIGINAL PAPERS

Regional Differences in Mississippi's Postneonatal Mortality, 1980-1983

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TRADITIONALLY, INFANT MORTALITY is divided into at least two time periods: neonatal mortality, which is death of an infant from birth to the 28th day of life, and postneonatal mortality, which is death of an infant from the 28th day of life to the first birthday. Neonatal mortality is generally attributed to problems related to pregnancy or birth (eg, prematurity, respiratory conditions, birth trauma, and asphyxia) whereas postneonatal mortality is generally attributed to problems related to infant health (eg, congenital anomalies, infections, Sudden Infant Death Syndrome [SIDS], and injuries). Although this chronologic division generally captures these concepts, it does not do so completely. Advances in neonatal medicine have helped premature and other critically ill newborns to survive past the 28th day of life. Some of these infants die during the second and third month of life having never left the hospital.¹ Conversely, some newborns die during the first month of life because of congenital anomalies, SIDS and injuries.

Because of its relationship with infant health-related problems, the postneonatal mortality rate closely reflects disparities between groups. Postneonates from families of lower socio-economic status generally experience a two to three times higher mortality risk than postneonates from wealthier families.² The infants who die are less likely to have had medical and, in particular, hospital services; thus, clinicians are less aware of the infant's health problems. A study in Boston suggested that this higher mortality among lower-income families is generally due to respiratory infection and SIDS.³

During the 1980s, the postneonatal mortality rate in many states has ceased declining. Although the postneonatal mortality rate in Mississippi declined 5.4% per year during the 1960s and 3.2% per year during the 1970s, the postneonatal mortality rate from 1981 to 1985 has virtually not declined. The white postneonatal mortality rate has not changed substantially since the beginning of the 1970s, and the rate for blacks and other races stopped declining during the 1980s (see Figure 1). Moreover, the postneonatal mortality rate in Mississippi has leveled off at a high rate compared with rates in other states. In 1983, Mississippi had the 15th and 3rd highest postneonatal mortality rates in the country for whites and for blacks and other races, respectively, and had the highest postneonatal mortality rate overall.

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Many factors probably contribute to this trend in Mississippi. Toward developing strategies that could further reduce the postneonatal mortality rate, we compared postneonatal mortality risks for different regions of the state. If some regions were experiencing higher postneonatal mortality risks than others, we wanted to know why. Did higher risks exist because of the presence of high-risk or disadvantaged groups or because of problems specific to that region? If such groups or problems could be identified, then health communities within the region, the Mississippi State Department of Health, and others could focus on reducing the region's rate, and thereby further reducing the state's rate.

Methods

To examine postneonatal mortality risks and related characteristics by regions within the state, we used information provided by Mississippi's linked birth and infant death certificates for 1980-83. The Division of Public Health Statistics, Mississippi State Department of Health, has been manually linking infant death certificates with their respective birth certificates routinely since 1980, with only 3% of the death certificates not having a corresponding birth certificate. This linkage permits the examination of mortality by maternal and infant characteristics included on the birth certificate (eg, birth-weight, maternal age, or maternal education).

The Division uses standard definitions for its vital events.⁴ Live births are defined similar to that of the World Health Organization standard: deliveries showing any sign of life, eg heart beating, pulsating umbilical cord, gasp/respiration, or voluntary movements. Neonatal, postneonatal, and infant deaths are defined as previously stated. Annually, the Division reports these death rates as the number of deaths that occurred during a particular year per 1,000 live births that occurred during the same year (as in Figure 1). However, for this study we define a postneonate as any live-born infant who survives past the 27th day of life, and the postneonatal mortality risk as the number of postneonatal deaths among infants born in a particular year per 1,000 postneonates born in the same year.

We restricted the study to postneonates who were single-gestation, live-born infants to Mississippi residents and who weighed 500 grams or more. Because black postneonates represent approximately 97% of the category of blacks and other races, for the remainder of the article we will refer to these postneonates as black.

We focused our geographic analysis on Mississippi's nine public health districts rather than on its

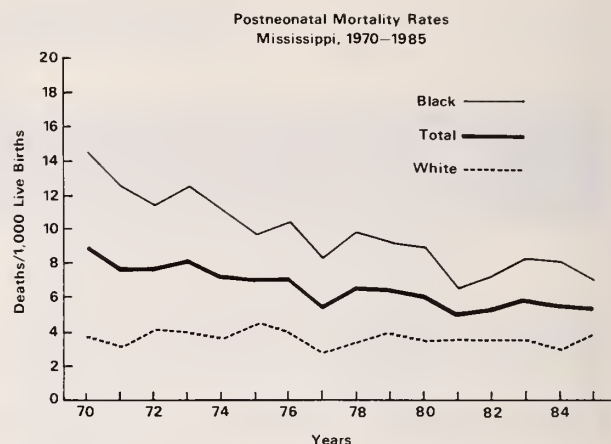


Figure 1.

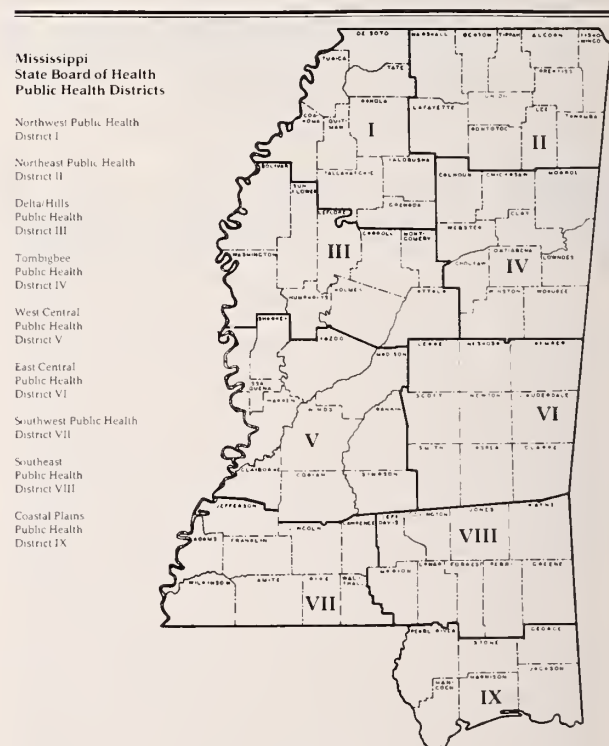


Figure 2.

82 counties (see Figure 2) because of the limited number of postneonatal deaths occurring in many counties. These nine health districts are roughly homogeneous; furthermore, any program to reduce regional differences in postneonatal mortality would probably be initiated through the nine public health districts.

We conducted our study in two phases. First, we compared the postneonatal mortality risks for the nine health districts with the state's risks, and

screened for districts with significantly higher or lower mortality risks. Next, we examined the characteristics of both mothers and infants in those districts, seeking to determine possible explanations for the higher mortality. During the first phase, we compared mortality risks by health district, adjusting for gender, birthweight (less than 1,500, 1,500-2,499, and 2,500 grams or more), and racial composition by indirect standardization.⁵ This statistical method calculates the number of deaths that would have been expected in a district if the district's postneonates had had the same mortality risks as the state by gender, birthweight, and race. The observed or actual number of deaths in each district was then divided by this expected number of deaths. This ratio, the standardized mortality ratio (SMR), estimates how many times greater or lesser the district mortality risk is compared with the state when adjusted for gender, birthweight, and racial composition. If the SMR is greater than 1.0, then the district's higher mortality risk is not completely explained by differences in these factors. We also calculated SMRs by race using a chi-square procedure to measure statistical significance at an alpha level of 0.05 and to provide 95% confidence limits.⁶

During the second phase, we further investigated two districts identified as having significantly elevated postneonatal mortality risks to determine possible explanations. First, we estimated relative risks for postneonatal mortality in these districts. Relative risks are similar to SMRs except that (1) each selected district was compared with the remaining seven districts instead of the state as a whole and (2) adjustments were calculated in a slightly different fashion. We calculated adjusted relative risks and 95% confidence limits, controlling for maternal age, maternal education, maternal marital status, adequacy of prenatal care, and infant birthweight.⁷

An important contributor to postneonatal mortality is the pattern of health care participation. Although the birth and death certificates do not contain a direct measure of the infant's health care participation, we used the mother's prenatal care participation as an indirect measure. To determine adequacy of prenatal care participation, we used the Kessner index. This index is based on the trimester of pregnancy in which prenatal care began, the number of prenatal visits, and the gestational age of the live birth.⁸

We also examined chronologic age at death, calendar month at death, place of death, and underlying cause of death for the two selected districts. To determine the underlying cause of death, we used a National Center for Health Statistics computer

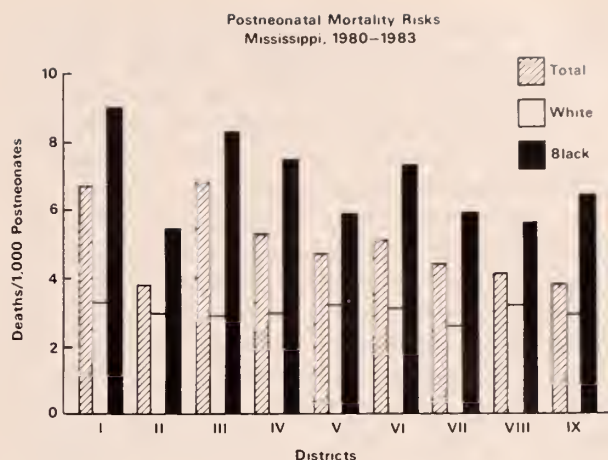


Figure 3.

algorithm, "Automated Classification of Medical Entities," which selects the underlying cause of death based on the causes reported by the certifying physician or coroner and hierarchical decision criteria.⁹ These causes of death were divided into seven mutually exclusive categories: SIDS, infections, injuries, congenital anomalies, perinatal conditions, other defined conditions, and unknown conditions.

Results

For 1980 to 1983, we studied 876 postneonatal deaths and 178,196 postneonates for an overall postneonatal mortality risk of 4.9 deaths per 1,000 postneonates. This postneonatal mortality risk is different from published rates for Mississippi because of definition, study design, and study restrictions. Fifty-two percent of postneonates were white, and 48% were black. When examined by health district, the postneonatal mortality risks varied substantially from 3.8 deaths per 1,000 postneonates in Districts II and IX to 6.7 and 6.8 for Districts I and III (see Figure 3). After adjusting for gender, birthweight, and racial composition by indirect standardization, we found Districts I and III had statistically higher mortality risks than the state's risk. The standardized mortality ratio (SMR) for District I was 1.3 (95% confidence limits: 1.0, 1.5); ie, the postneonatal mortality risk for District I was 1.3 times higher than the risk for the state after adjustment for gender, birthweight, and race. The SMR for District III was 1.2 (95% C.L.: 1.0, 1.4). No district's mortality risk was significantly lower than the state's mortality risk.

Black postneonates statewide had consistently higher mortality risks than did white postneonates, with black risks being between 1.8 and 2.9 times the risks for whites. When we examined each race

group separately, a different geographic mortality pattern appeared by race. The mortality risk for white postneonates varied little by district: 2.6 to 3.3 deaths per 1,000 postneonates. No district's mortality risk for white postneonates was significantly different from the state's.

In contrast, most of the variation in postneonatal mortality risk by district for all races could be explained by the wide variation in mortality risks for black postneonates. The risks varied from 5.5 and 5.6 deaths per 1,000 postneonates in Districts II and VIII to 9.0 and 8.3 in Districts I and III. Among blacks, Districts I and III had significantly higher SMRs, 1.3 (95% C.L.: 1.1, 1.6) and 1.2 (95% C.L.: 1.0, 1.4), respectively. No district's SMR for blacks was significantly lower.

In the second phase of the study, we focused on the high black postneonatal mortality risks in Districts I and III. For a consistent comparison, black postneonates in these districts were always compared with black postneonates in the remaining seven districts. Black postneonates in these two districts were more likely to have infant and maternal characteristics consistent with a higher mortality risk (see Table 1). Districts I and III had a higher proportion of postneonates with birthweights less than 2,500 grams, and a higher proportion of mothers who were unmarried, were less than 18 years of age, had less than 9 years of education, and/or participated inadequately in prenatal care. To determine the effect of these differences in characteristics on mortality risks by health districts, we focused our analysis on Districts I and III separately.

District I

In District I, the relative risk of postneonatal mortality was 1.46 (95% C.L.: 1.2-1.9); ie, the mortality risk for black postneonates in District I was

TABLE 1
PERCENTAGE OF BLACK POSTNEONATES BY
MATERNAL AND INFANT CHARACTERISTICS.
MISSISSIPPI, 1980 TO 1983

<i>Characteristics</i>	<i>Dist. I</i>	<i>Dist. III</i>	<i>Other</i>
<i>Infant</i>			
Birthweight <2,500 g	10.1%	10.2%	10.0%
<i>Maternal</i>			
Unmarried	62.6%	62.3%	50.8%
<18 years of age	17.5%	16.4%	13.5%
<9th grade education	13.0%	13.3%	7.8%
Inadequate prenatal care	18.4%	19.0%	14.6%

1.46 times the risk for black postneonates in the remaining seven districts (excluding Districts I and III). This relative risk is higher than the previously reported SMR because the SMR was based on comparison with the state (including Districts I and III).

We calculated adjusted relative risks by maternal age (less than 18, 18-24, 25-29, and 30 or more years), maternal education (less than 9, 9-11, 12, and 13 or more years), maternal marital status (married and single), adequacy of prenatal care (inadequate, intermediate, and adequate), or infant birthweight (less than 1,500, 1,500-2,499, and 2,500 or more grams) to control for the differences in maternal and postneonatal characteristics shown in Table 1. The lowest adjusted relative risk was 1.31 (95% C.L.: 1.0, 1.7), adjusting for maternal education. The combined adjustment of maternal education, adequacy of prenatal care, and birthweight lowered the relative risk to only 1.30 (95% C.L.: 1.0, 1.7). Thus, the differences in these characteristics, alone or in combination, did not fully explain the higher mortality risk in District I. Furthermore, no statistically significant variation in relative risk estimates by the various categories of characteristics was detected. In other words, the higher relative risk for District I was generally experienced by black postneonates in the various categories of maternal and infant characteristics.

We compared the mortality risk for District I with the black mortality risk in the remaining districts by chronologic age. Age at death was broken down into the following five categories: 1st month, 2nd month, 3rd month, 4th to 6th month, and 7th to 12th month. If postponement of neonatal problems and/or deaths accounted for the higher mortality risk in District I, the relative risks should have been predominantly elevated during the second and third months of life. After the first month, however, the higher relative risk for postneonatal mortality occurred throughout the first year, with relative risks of 1.2, 1.5, 1.4, 1.4, and 1.5, respectively.

To further investigate the higher mortality risk in District I, we examined the percentage of black postneonatal deaths that occurred in a health care facility and the mortality risks by underlying causes of death. Only 24% of black postneonatal deaths in District I occurred in a hospital or clinic compared with 44% for black postneonates in other districts ($P = .001$). Roughly 56% of white postneonates for both areas died in a hospital or clinic. Most of the remaining deaths were either dead-on-arrival or occurred at home. The lower percentage in District I could reflect either that postneonates had less access to or utilization of hospitals or clinics or that

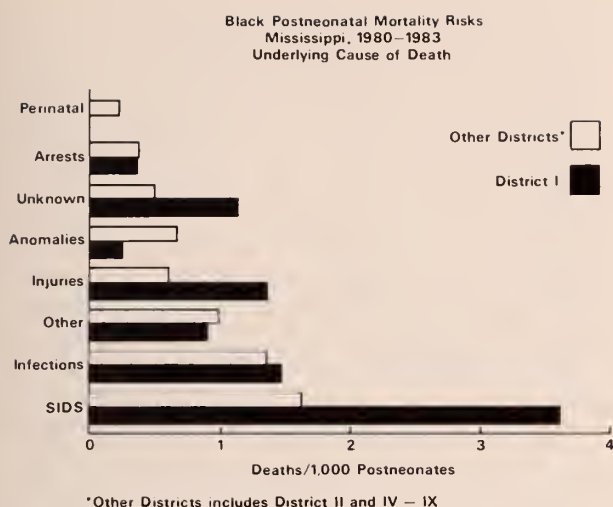


Figure 4.

postneonates in these districts experienced a higher rate of some unrecognized process such as SIDS.

Next, we focused on underlying cause of death. With black postneonates having 9.0 and 6.2 deaths per 1,000 postneonates in Districts I and remaining districts, respectively, the difference in mortality risk for these two groups was 2.8 deaths per 1,000 postneonates. The difference in mortality risks due to SIDS was 2.0 deaths per 1,000 postneonates ($P = .001$) and accounted for 72% of the overall mortality difference (see Figure 4). Injuries ($P = .01$) and unknown causes of death ($P = .02$) accounted for the remaining fraction. Perinatal conditions or conditions arising in the perinatal period contributed little to the increased mortality in District I, further supporting the finding that postponement of neonatal problems did not explain the higher mortality risk. However, with only 4% of black postneonates in District I and 22% of black postneonates in the remaining seven districts having autopsies according to the death certificates, most of the additional mortality can be attributed to poorly-defined causes.

District III

Unlike District I, the higher mortality risk for black postneonates in District III occurred predominantly among infants who weighed less than 2,500 grams at birth. When comparing black postneonatal mortality risks in District III with the remaining seven districts, black postneonates weighing less than 2,500 grams at birth had a relative risk of 1.73 (95% C.L.: 1.3, 2.4) and black postneonates weighing 2,500 grams or more at birth had a relative risk of 1.11 (95% C.L.: 0.86, 1.4). The difference in relative risks by birthweight groups was statistically significant (test for heterogeneity, $P = 0.03$). Be-

cause postneonates who weighed less than 2,500 grams at birth accounted for most of the additional black postneonatal mortality in District III, further district-specific analyses were restricted to these postneonates.

To discern possible explanations for the higher mortality risk among the lower birthweight black postneonates, we conducted a similar series of analyses as with District I. Adjustments for birthweight (less than 1,500 and 1,500-2,499 grams), maternal age, maternal education, maternal marital status, adequacy of prenatal care, or a combination of these characteristics did not substantially change the relative risk. Because the higher mortality risk among these smaller infants in District III might be explained by a higher prevalence of critically sick infants, we used 5-minute Apgar as a measure for prevalence of such infants. However, the adjustment for 5-minute Apgar (less than 7, 7-8, and 9-10) increased the relative risk to 2.08 (95% C.L.: 1.5, 2.9). None of the other maternal and infant characteristics, separately or in combination, explained the higher mortality in District III.

When chronologic age and underlying causes of death were studied for black postneonates weighing less than 2,500 grams at birth in District III, findings for District III were similar to those for District I. The increased relative risk by chronologic age was fairly constant across all age groups, except in the first month (relative risk = 1.1). For the underlying cause of death analysis, SIDS, unknown causes, congenital anomalies, and injuries accounted for most of the increased mortality in District III. In terms of hospitalization, 40% of the postneonatal deaths among infants weighing less than 2,500 grams at birth occurred in a hospital or clinic in District III compared with 55% of these smaller infants in the other districts. To summarize for District III, (1) most of the higher mortality in black postneonates weighing less than 2,500 grams at birth occurred throughout the postneonatal period predominantly due to poorly-defined causes of death, and (2) the postneonates who died were less likely to have been hospitalized.

Seasonal Effects

Because Districts I and III comprise the Mississippi Delta region — an area dependent on agriculture — and because agricultural communities change seasonally in terms of labor, economics, and chemical usage, mortality risks of black postneonates in these districts may have been affected by these seasonal changes. The agricultural effect on mortality would have had to occur somewhat dif-

ferently by race because the mortality risks for white postneonates did not vary by district. To examine for seasonal effects from January 1981 to December 1983, we compared the mortality risks of black postneonates for both districts with the mortality risks for black postneonates in the remaining districts. We used 3-month running averages to stabilize the risk estimates because of the relatively small numbers of deaths in any one month (see Figure 5). Three-month running average is the number of deaths in the prior month, the month under consideration, and the next month divided by the number of postneonatal survivors in the same three months.

Consistently higher mortality risks for black postneonates in Districts I and III started in December 1981 and continued across all seasons until November 1983. Based on Figure 5, no month or season accounted for most of the increased mortality risk in Districts I and III. When we compared black postneonatal mortality risks for Districts I and III with those in the remaining seven districts from 1970 to 1984, Districts I and III had an oscillating pattern of generally higher postneonatal mortality risks on a 3- to 4-year cycle similar to that seen in Figure 5. To summarize, Districts I and III have generally experienced a consistently higher black postneonatal mortality risk, and from 1980 to 1983, this higher mortality risk could not be explained adequately by routinely collected vital statistics information.

Discussion

Mississippi continues to have one of the highest infant mortality rates among U.S. states: 13.7 infant deaths per 1,000 live births in 1985. During the 1970s, Mississippi's mortality rate for both black and white infants declined faster than rates for the nation and for most other states. However, during the 1980s the rate of decline in Mississippi has slowed. In part, this slowing in the improvement of infant mortality is due to a lack of decline in the postneonatal mortality rate.

Given the limited additional health resources available, new efforts to reduce the stagnant postneonatal mortality rate need to be carefully targeted at high-risk populations/areas with reasonably cost-effective programs. Presently, few such programs have been implemented on an areawide basis. Objectives for new public health programs or systems of care need to address either reductions in the prevalence of pregnancies among high-risk groups (eg, teenage pregnancy) or reductions in the high postneonatal mortality experienced by such groups.

In this study, we identified two groups with higher

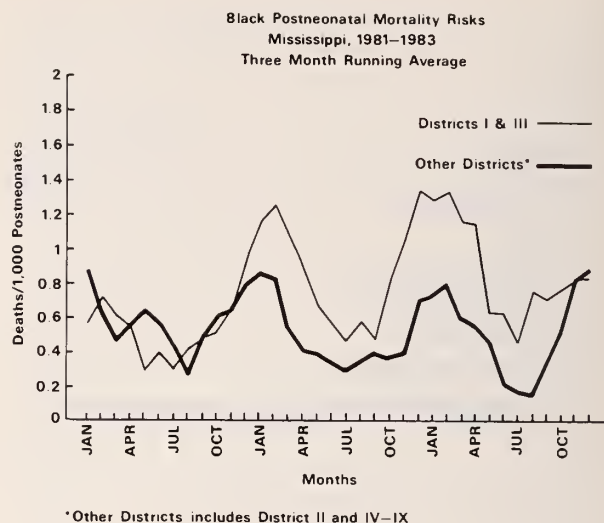


Figure 5.

mortality. First, black postneonates statewide experienced a two times higher mortality risk than white postneonates. Second, black postneonates in Districts I and III experienced 1.4 times the mortality risk of black postneonates in the remaining seven districts and 3 times the mortality risk of white postneonates from the same two districts. Compared with white postneonates, black postneonates nationwide experienced a greater than twofold mortality risk. Part of the higher black mortality risk is explained by the high prevalence of teenage pregnancy, poverty, poor maternal education, and low-birthweight births, but these high-risk factors do not account for all of the difference. To reduce postneonatal mortality statewide and nationwide, we need more public health research and services.

For black postneonates in Districts I and III, the prevalence of high risk factors among mothers and infants did not completely explain the higher mortality risk. Even though the higher risks in Districts I and III were statistically significant, were these disparities among black postneonates of public health importance? The answer is yes. One supporting comparison for this conclusion is that the difference in mortality risks between the lowest and highest districts for black postneonates, 3.5 deaths per 1,000 postneonates, was greater than the actual postneonatal mortality risk for whites in any district. In other words, black postneonates in these two districts were almost three times as likely to die during the postneonatal period as were white postneonates. If black postneonates in these two districts had the same mortality risk as black postneonates in other districts, the state's risk for black postneonates would decrease 10%.

Although we identified areas and groups with higher risks, we were unable to explain the higher risks using vital statistics information. At least two major reasons exist. First, no detailed cause-of-death information was available. A major link in the chain of events leading to death is missing when deaths (1) do not occur in a hospital or clinic; (2) are labeled as ill-defined causes of death (SIDS, cardiorespiratory arrest, and unknown cause of death); (3) are certified by coroners who do not have any medical training; and (4) include few autopsies to verify the cause. Consequently, no particular disease processes can be implicated; thus, no focus for medical intervention can be directly identified.

Second, maternal and infant characteristics available on birth certificates are neither the sole contributors to postneonatal mortality nor necessarily the cause of higher risk. Rather, they identify groups at higher risk. Many other important associated and causal factors are unavailable on birth certificates: such as perinatal morbidity, additional medical history, information on present illness, health care utilization, immunization status, financial status, home environment, social network, and parenting skills.

Major advances are occurring in the State of Mississippi directed towards improving the cause-of-death information on infant deaths. For example, the state hired a new State Medical Examiner in 1985; and on July 1, 1986, the new medical examiner's law mandated autopsies for many infants dying from unknown causes. Also for the first time, the law requires county coroners to receive special training and to meet certain standards. Recently, the autopsy rate for infants dying from unknown causes of death has greatly improved, probably as a result of these efforts. More autopsies and better-trained coroners should improve the certified causes of death and substantially improve our understanding of postneonatal mortality.

Moreover, the physician's role in certifying the cause of death should not be taken lightly. Throughout the country, the accuracy of information and the importance of completing death certificates have not been adequately addressed in our medical education system. As physicians, we must take the time to decide the causes of death as accurately as possible, obtain autopsies when necessary, and complete the death certificates as instructed. The physician time spent in accurately filling out death certificates is a critical resource to any meaningful research directed toward preventing future deaths.

In addition, new mechanisms need to be developed to obtain additional information not routinely collected through birth and death certificates. Many

states are adding to their vital records by linking program information such as Medicaid, Women, Infants, and Children Food Supplemental Program, hospital discharge surveys, neonatal transport records, neonatal intensive care discharge surveys, and public health clinic abstracts. This information enables investigators to examine the impact of these programs on mortality, teenage pregnancy, low-birthweight infants, and other perinatal outcomes. In addition, such information aids in targeting programs toward reducing these outcomes. However beneficial this information linkage is, this approach cannot provide all the required information to explain postneonatal mortality. Family income, health care access/utilization, parenting skills, home environment, social networks, and transportation difficulties are also important contributors to mortality that may not be available through such linkages.

Infant death reviews offer another approach to enriching the data available on birth and death certificates.¹⁰ Using a review format, one can obtain information from multiple record sources: hospitals, physician offices, programs, and autopsies. In addition, home interviews provide more detailed information on medical history, home environment, and family life. If the information is collected on both postneonates who die as well as ones who survive, appropriate comparisons can be completed. This more complete medical and sociological information provides a broader base from which to understand the events that contribute to postneonatal mortality. In certain areas within the state, medical communities have already taken major steps towards conducting infant death reviews. Valuable anecdotal information has been gained, but systematic collection of information from postneonatal deaths and survivors is required to interpret the broad problem.

Why have black postneonates in the Delta region consistently experienced a higher mortality rate than black postneonates in the rest of the state, especially when white postneonates in the region have not? One reason may be the consistently high level of poverty in this region. Eleven of 18 Delta counties are in the highest quartile in the state for the percentage of citizens below the federal poverty level. For these 11 counties, 31.3% to 52.9% of citizens are below the federal poverty level of less than \$886 per month for a four-person family (1985). Black postneonates would be disproportionately affected because proportionately more black than white families have low incomes.

If socioeconomic status explains a major part of the higher mortality risk in the Delta region, what

is the mechanism of that higher mortality? If postneonatal mortality is infant-health related and if low maternal income or education places a postneonate at a disadvantage, is the higher mortality mediated through poorer health, inadequate health care, or both? The higher proportion of deaths occurring outside a medical setting suggests inadequate health care. With the inability to improve quickly the economic capability of the Delta region, it is important not to wait on such an economic improvement to raise infant survival. Discerning where failures exist in our present health care system, from the mother's health knowledge to physician and hospital access, could provide targets for presently available interventions.

With Mississippi's postneonatal mortality rate ceasing to decline and with limited financial resources available to remedy the situation, Mississippi could benefit from a better understanding of its problems related to postneonatal mortality, and could develop or expand effective intervention programs targeted to maximize these benefits. Moreover, postneonatal mortality is more than just a medical problem. Postneonatal mortality is a sensitive indicator for many social issues. Both understanding and intervening in postneonatal mortality will require more than just the continued cooperative efforts of private and public providers: it will require direct family and community involvement beyond the traditional health care system. ★★★


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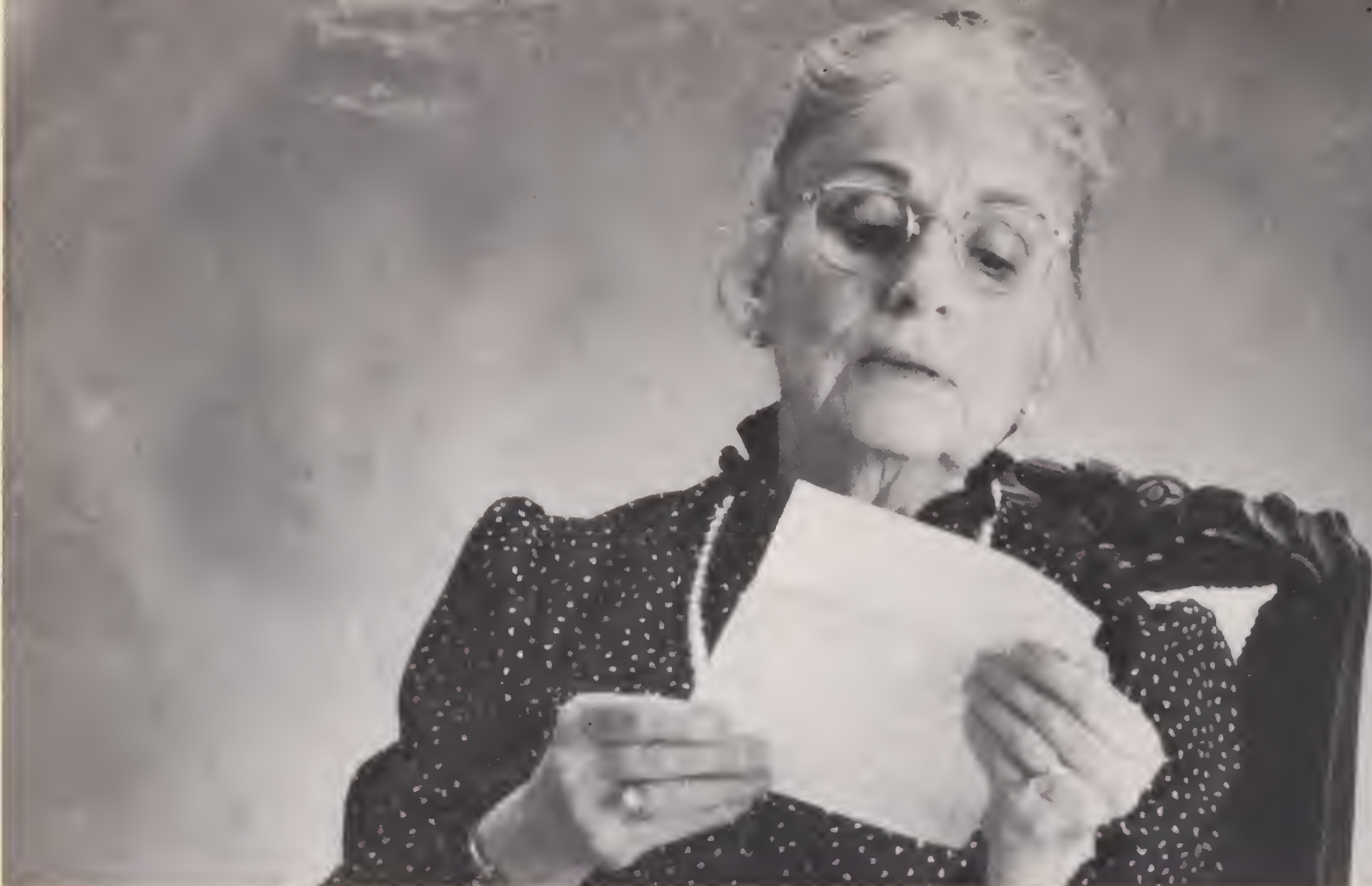
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Tumors of the Small Intestine: Review, Including a New Category Associated with AIDS

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THE SMALL INTESTINE is an infrequent site for benign and malignant neoplasms. Despite containing 90% of the mucosal surface of the gastrointestinal tract, the small intestine yields less than 6% of all GI neoplasms.¹ Histology and long-term clinical behavior are quite varied among the neoplasms, but clinical presentation is similar for most. Diagnosis, often difficult and delayed, is commonly made only at the time of surgery. These relatively rare neoplasms remain of interest to surgeons and physicians because of their diagnostic elusiveness and poor results in treatment of malignant tumors.

Brief summaries are given of seven diverse cases treated by the authors over a period of eight years. A review follows, including discussion of the relatively new entity of acquired immune deficiency syndrome (AIDS) related small bowel neoplasms.

Case Reports

Case 1. J.E., a 67-year-old white male, had a 14-month history of anemia with dark hematest positive stools. Upper gastrointestinal series and proctoscopy were unrevealing. Because he had been on aspirin and nonsteroidal antiinflammatory drugs, the bleeding was believed due to gastritis, and he had been given iron supplements. For seven months he had intermittent episodes of nausea, vomiting, and abdominal pain, usually resolving after 24 hours.

Admission to the hospital was preceded by three

Small bowel neoplasia is an uncommon but significant source of morbidity and mortality, according to the authors. They note that tumors often go unrecognized for months before diagnosis, and suggest that increased awareness and high index of suspicion are necessary for earlier recognition and improved survival. They maintain that in the future surgeons and clinicians may more often be faced with diagnosis and treatment of these lesions, because of a new category of small bowel malignancies associated with AIDS.

days of nausea, vomiting, abdominal distention, and obstipation. He presented with mid-abdominal tenderness without mass. Hematocrit was 26.5% after hydration. Abdominal films suggested small bowel obstruction, yet there was gas in the right colon. Barium enema and colonoscopy were normal. Small bowel series revealed a filling defect in the distal jejunum with intermittent intussusception (see Figure 1). On exploration, there was a 4.5 cm tumor on the antimesenteric border of the distal jejunum, with no enlarged mesenteric lymph nodes or liver masses. A segmental resection of the jejunum and its mesentery were performed. The large submucosal tumor proved to be a leiomyoma with mucosal ulceration (see Figure 2). Recovery was uneventful, and there has been no recurrence of symptoms.

From the Jackson Surgical Group, P.A., Jackson, MS.

Case 2. J.T., a 67-year-old white male minister, first presented with acute lower gastrointestinal bleeding. He had an abdominal mass palpable below the umbilicus. Sonography and arteriography failed to reveal the nature of the mass. At laparotomy, an 8 cm tumor was found in the mid-jejunum, fixed to the omentum and anterior wall of the sigmoid, with metastatic involvement of mesenteric nodes and the liver. Pathologic examination revealed this to be a leiomyosarcoma of the small intestine.



Figure 1. Small bowel series showing jejunal filling defect, Case 1.

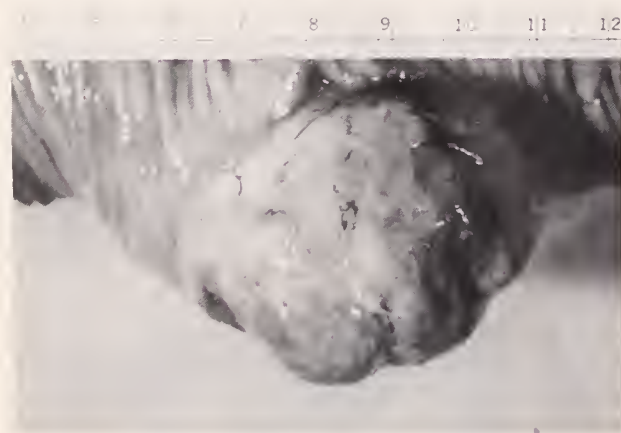


Figure 2. Leiomyoma resection, Case 1.

Chemotherapy was begun. However, the patient did not respond and expired fourteen months after original presentation.

Case 3. W.M., a 67-year-old white male had had occult rectal bleeding for a year when he was admitted with an episode of tarry stools, fatigue, dizziness, chills and fever. Physical examination revealed no abdominal mass or adenopathy. Stool was black and tested positive for blood. Liver function tests were normal except for a mild elevation of the alkaline phosphatase. Endoscopy revealed no esophagogastric pathology. Colonoscopy revealed a 1 cm submucosal mass in the wall of the cecum, but biopsy was not diagnostic. Laparotomy disclosed a submucosal plaque in the medial wall of the cecum, a 3.5 cm mass in the distal ileum, and a 3.5 cm mass in the mid-jejunum causing intussusception and partial obstruction. Each of these lesions proved to be immunoblastic sarcoma. A serosal nodule in the proximal jejunum proved to be a small leiomyoma. The liver and mesentery were free of disease. A right ileocectomy and jejunal resection were carried out. Recovery was uncomplicated. The patient declined adjuvant chemotherapy. One year postoperatively, evaluation with colonoscopy, small bowel series, chest x-ray and CT abdominal scan revealed no recurrent disease. Six months later, he had a large pulmonary embolus, from which he survived. One month later he died of a myocardial infarction. There was no clinical evidence of recurrent disease at the time of his death.

Case 4. R.T., a 48-year-old diabetic black female underwent cholecystectomy for recurrent right upper quadrant pain and demonstration of gallstones on oral cholecystogram. At laparotomy, there was the incidental finding of multiple tumors of the ileum, the largest of which was 3.5 cm in diameter. There were many smaller tumors along the small bowel adjacent to the mesentery. There were no enlarged mesenteric nodes or palpable liver lesions. The largest of these tumors was excised and proved to be a malignant carcinoid. She was given 5-fluorouracil for six months and remained asymptomatic. During the subsequent five years, she had recurring episodes of abdominal pain. During the sixth year, surgery was required for acute small bowel obstruction. It was found that she had local recurrence at the site of the anastomosis and significant involvement of the adjacent mesenteric nodes with shortening of the small bowel mesentery. Wide resection of the area was carried out, and anastomosis constructed. There was no question, however, that residual metastatic disease existed. Additional adjuvant chemotherapy was begun with Streptazocin.

Currently she is seven years postsurgery and asymptomatic. 5-HIAA is normal.

Case 5. H.H., a 73-year-old white male, had a 3.5 cm level IV melanoma removed from the skin overlying the left scapula. The tumor recurred locally in two years. Following a course of BCG immunotherapy, the area was re-excised. Four years later, he presented with rectal bleeding and anemia. At laparotomy, a large ulcerated fungating tumor mass was found in the jejunum, extending into the mesentery and mesenteric nodes — metastatic malignant melanoma. Six months later, CT scan, performed for pain, revealed a mass near the right renal pelvis. Presumed to be melanoma, it was treated with radiation therapy. Seven years after discovery of the original malignant skin lesion, the patient died with metastatic disease to the mediastinum and cervical lymph nodes.

Case 6. N.H., a 39-year-old white female school teacher, presented with right lower quadrant pain and tenderness, fever, and leukocytosis. On exploration, she was found to have a 5 cm discrete firm mass arising in the mesentery of the ileum at the ileocecal junction. There was evidence of old and acute hemorrhage. A right hemicolectomy was performed for malignant hemangiopericytoma. There has been no subsequent recurrence.

Case 7. J.S., a 30-year-old white male homosexual, presented with a six-months history of anorexia, early satiety, fever, postprandial cramping, 20-pound weight loss and back pain. For two weeks before admission, he had had acute abdominal pain, nausea and bilious vomiting. KUB, barium enema, IVP, gallbladder sonogram were all normal. Small bowel series demonstrated marked jejunal dilatation and partial small bowel obstruction. Physical examination revealed a thin young man with diffuse adenopathy, left upper quadrant tenderness, but no palpable abdominal mass. HTLV-III was positive.

At laparotomy, he was found to have a 3.5 cm transmural jejunal mass, with no involvement of the liver or mesenteric lymph nodes. Pathologic examination revealed malignant lymphoma, diffuse large cell, immunoblastic, plasmacytoid type. Later staging included a negative abdominal CT scan, and normal bone marrow examination. Bone scan, however, did show abnormal uptake in the lumbar spine. Chemotherapy was initiated, but the patient died six months later from his malignancy and infectious complications.

Discussion

Tumors of the small intestine may occur at any age, but occur primarily in the fifth, sixth and sev-

enth decades. In most series, malignant tumors have been more common than benign tumors. There is no difference in incidence in males and females.^{1, 2, 3}

Histopathological classification includes benign and malignant tumors arising from all types of tissue represented in the small intestine. Glandular epithelial tissue gives rise to adenomatous polyps, villous adenomas, Brunner's adenomas and adenocarcinomas. Enterchromaffin cells may produce carcinoids. Adenocarcinomas are the most common malignancies, followed by lymphomas and leiomyosarcomas. A full histological spectrum of lymphomas is seen from lymphoid tissue. Leiomyomas and leiomyosarcomas may originate in the smooth muscle. Less commonly, hemangiomas, lipomas, sarcomas and neurogenic tumors are seen from their respective tissues of origin. Hamartomas are seen in Peutz-Jeghers syndrome. In addition, metastatic lesions may be seen from other sites, such as melanoma.

Benign tumors occur equally in the jejunum and ileum, but less frequently in the duodenum.² Malignant tumors are distributed according to tissue type. Adenocarcinomas tend to occur in the duodenum and proximal jejunum, while leiomyosarcomas favor the jejunum. Lymphomas are seen most frequently in the proximal ileum, and carcinoids in the distal ileum and appendix. The incidence of malignant tumors per unit length is highest in the relatively short duodenum.¹

Symptoms from small bowel neoplasms are often vague and non-specific. The interval between onset of symptoms and diagnosis is commonly six to 12 months.^{2, 3} Most symptoms are due to obstruction or bleeding. A tumor may obstruct completely, partially, or intermittently. The mechanism of obstruction may be by intussusception, obliteration of the lumen, or foreshortening of the mesentery (some carcinoids). These conditions may be manifest by continuous mild pain, intermittent severe pain, nausea, vomiting, obstipation or any combination, depending upon the mechanism. Mucosal ulceration by the tumor may result in occult or acute blood loss, anemia, or tarry stools. Hemangiomas and leiomyosarcomas may cause intermittent bleeding. Systemic symptoms such as fever, chills and weight loss, may indicate lymphoma. A minority of carcinoid tumors present with diarrhea, flushing, or other characteristics of carcinoid syndrome.

Many patients with small bowel tumors have no specific physical findings. Even abdominal distention may be minimal in patients with jejunal obstruction. Tenderness may be present in strangulation obstruction or perforation (common in

leiomyosarcoma). Hepatomegaly may indicate carcinoid with metastases. Abdominal mass may be present with intussusception or large malignant tumors (leiomyosarcoma, lymphoma, or carcinoid).

Diagnosis of a small bowel tumor is difficult, not only because of non-specific signs and symptoms, but also because of the relatively inaccessibility of the small intestine to radiologists and endoscopists. Even distal duodenal tumors may be overlooked on upper endoscopy or barium studies unless specifically suspected. Colonoscopy led indirectly to the diagnosis of our Case 3, but is generally useful only in excluding the colon as the source of symptoms. Ultrasound and computed tomography are helpful only if the tumor is large or metastases are present. Arteriography may occasionally be helpful in identifying vascular tumors, or localizing active bleeding. Small bowel series, or enteroclysis, may be very useful, as in Case 1, when a small tumor is suspected. Exploratory laparotomy remains an important diagnostic tool for small bowel tumors.

Small bowel neoplasms should be excised by local small bowel resection, with generous margins, and a wedge of mesentery. Because of the proximity of the superior mesenteric artery to a small bowel lesion, extensive regional lymph node removal is not possible. This anatomic fact may contribute to the poor prognosis of small bowel malignancies, relative to the colon, where ileocolic, middle colic, and left colic arteries may be divided in resection for cancer, providing more extensive lymphatic removal. Duodenal malignancies may require pancreaticoduodenectomy. Multiple tumors, as seen in carcinoid and lymphoma, should be excised, when feasible. In Peutz-Jeghers syndrome, only symptomatic polyps of greater than 2 cm should be excised. Except for lymphomas, malignant small bowel tumors are poorly responsive to radiation and chemotherapy.

Overall prognosis of small bowel malignancy is poor. Late presentation with advanced disease and anatomical difficulty in doing radical surgery are partially responsible. Reported five-year survival ranges from 22% to 37%. With advances in chemotherapy and radiation therapy, five-year survival rate as high as 80% is reported for small bowel lymphoma. Carcinoid is generally a slowly progressive disease, with five-year survival of 30% to 67%, but less than 10% are alive five years from discovery of liver metastases. The five-year survival is worse for patients with leiomyosarcoma (20% to 37%), and adenocarcinoma (15% to 26%).³⁻⁶

Several hypotheses have been proposed to explain the relative immunity of the small bowel to malignancy. Rapid transit of contents through the small

bowel, as compared to the colon, results in briefer exposure to potential carcinogens. Alkalinity and low bacterial count have been suggested as protective factors. Several authors have noted a high incidence of second primary neoplasms in patients with small bowel tumors, suggesting compromised immunity.^{3,4} The concept is well illustrated in our patient with AIDS (Case 7).

Case 7 represents a new category of small bowel malignancies: those associated with the acquired immunodeficiency syndrome (AIDS). The relationship between immunodeficient states and neoplasia is well established in transplant patients, and in those undergoing chemotherapy. Since the recognition of AIDS, there have been numerous reports of associated lymphoma, Kaposi's sarcoma, oropharyngeal squamous cell carcinoma, and cloacogenic rectal carcinoma. Lymphomas among patients at high risk for AIDS differ in several respects from lymphomas in the general population. The usual preponderance of non-Hodgkin's lymphomas in young adults is reversed in this sub-group, in whom B-cell immunoblastic and small non-cleaved lymphomas are most common. High grade histology, extranodal presentation, and involvement of the gastrointestinal tract, central nervous system, and bone marrow are also more common. Human retrovirus has been isolated from AIDS-associated lymphomas, and lymphomas have been produced in monkeys by injection with AIDS-causing retrovirus. Mean survival of reported patients with AIDS-related small bowel lymphoma is only seven to 13 weeks after surgery.⁷⁻⁹

GI involvement has been reported in as many as half of patients with AIDS-related Kaposi's sarcoma.¹⁰ Submucosal disease may involve the entire length of the intraabdominal gastrointestinal tract. Bleeding and abdominal pain may occur, but patients are commonly asymptomatic. Gastrointestinal complaints in patients with AIDS may be attributed to the "gay bowel" syndrome. These patients should be evaluated for lymphoma and intestinal Kaposi's sarcoma.

Small bowel neoplasia remains an uncommon, but significant, source of morbidity and mortality. Tumors often go unrecognized for months before diagnosis. Earlier recognition and improved survival in malignant disease will result only from increased awareness and a high index of suspicion. With the addition of a new category of small bowel malignancies related to AIDS, surgeons and clinicians may be faced with diagnosis and treatment of small bowel lesions more frequently in the future.

★★★

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Can a State Medical Society Effectively Sponsor a Managed Care Delivery System? Issues For Consideration

WILLIAM G. KOPIT

Washington, DC

INCREASINGLY, managed care delivery systems such as health maintenance organizations (HMOs) and preferred provider organizations (PPOs) are becoming significant features of the health insurance market in most, if not all, areas of the country. Publicly traded national HMO companies, the Blues, commercial insurers, and hospital systems and chains are all investing heavily in HMO development.

The federal and state governments, preoccupied as they are with decreasing the rate of inflation for health care, continue to promote managed care as a vehicle for increasing competition, and ultimately reducing the rate of price increases. Perhaps even more important, large employers are insisting that managed care be used as a device for holding down the percentage of their costs which are devoted to providing health care for employees and retirees.

For these reasons, we can anticipate that during the next five or ten years both the number of managed care plans and the number of physicians participating in these plans will continue to increase rapidly. State medical societies are searching for an appropriate role to play in guiding the development of this movement in ways that are beneficial to the physician community.

State Role

What is the appropriate role for state medical societies? A number of state medical societies have adopted an active role in introducing quality assurance standards into state HMO and PPO authorizing legislation. Moreover, some state medical societies have pressed for increased reserve requirements to insure that licensed managed care plans remain financially viable. However, a number of state so-

cieties are considering going beyond such traditional roles and actively undertaking the development of managed programs. Indeed, several state medical societies have already begun their own health maintenance organizations (HMOs) or independent physician organizations (IPOs).

The involvement of state medical societies in these non-traditional ways has sparked considerable debate. Is the development of a managed care program an appropriate role for state medical societies? Indeed, can a state medical society legally undertake such a function? My own answer to both of these questions is a qualified yes. State medical societies can appropriately develop managed care programs, although if they are to do so successfully they must undergo a considerable amount of soul searching. If they do elect to go forward they can legally develop a managed care program, but there are a number of legal pitfalls which they must avoid. These relate primarily to the antitrust laws. In short, the response to the question "how does a medical society develop a managed care plan?" is not unlike the response to the question "how do you approach a 400 lb. sleeping gorilla?" Very carefully.

Problems

Certainly, there are a number of important legal issues — including antitrust issues — which must be addressed by any state medical society considering the development of a managed care program. Nevertheless, the predominant questions facing medical societies interested in playing that role are political and operational, not legal.

Politically, the state medical society must understand that sponsoring the development of a managed care program may force implementation of measures that medical societies have historically op-

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posed. Admittedly, it should be possible for a medical society to develop an organization that is more "physician friendly" than some or all of its competitors. Physicians can easily be more sensitive to the needs and concerns of the physician community than can large insurance companies, or other non-physician controlled corporations. Indeed, that is the primary reason medical societies even consider the development of managed care programs.

Yet, developing a physician controlled organization will not insulate an organization from the demands of a competitive market driven by cost and price comparisons. For that reason, it is conceivable that a medical society sponsored managed health care plan will be forced to resort to fee schedules that represent reductions from customary and usual fees, or alternatively, to even adopt more radical payment measures such as physician capitation. Similarly, stringent utilization methods including primary care referral through the "gatekeeper" concept may have to be imposed at some point, if the market dictates. The reaction of the medical society membership to the implementation of these measures is relatively easy to predict. It is not likely that it will be favorable.

Participation

Another problem relates to the fact that the plan may not be perceived as benefiting all members of the medical society. Typically, no more than one-third of membership will initially agree to participate in the plan and, in fact, there may be increased antitrust risks if too many physicians elect to participate. To the extent that medical society funds are used to subsidize plan development or design, it can be expected that physicians who have elected not to participate will object to the use of their dues for that purpose. To be sure the plan could have value to those physicians as well. For example, it would offer them an option that is hopefully more attractive than the others available if they should ever elect to participate. Moreover, the very presence of the plan may have a salutary effect on the management styles of competing plans. Yet, those points are not easy to make.

These concerns can be exacerbated if the medical society is relatively late in attempting to establish its managed care program. Where physician members of the medical society have already invested in other physician sponsored or controlled plans it is predictable that they will resent the intrusion of the medical society into their plan's domain. Indeed, they are likely to perceive the effort as worse than another latecomer horning in on their turf, even

though a statewide organization could, in many cases, complement rather than compete with more localized physician controlled plans.

Finally, it may become necessary to impose sanctions upon, or even exclude or expel, certain physicians from the managed health care plan because of their style of practice, or their level of competence. Where these physicians are dues paying members of the medical society such actions can, of course, have difficult political ramifications. For all of these reasons, it is far easier for a medical society to become a critic of existing managed care plans than to become a target of criticism from their membership by themselves initiating such a project.

Operations

The operational problems are no less difficult than the political ones. Money — or the lack of it — is perhaps most important. As competition increases, the amount of money necessary to develop a managed health care program also increases. Indeed, many of the large companies now offering HMOs can afford to subsidize premiums in order to insure that more thinly capitalized plans — like those organized by physicians — are the victims of a price squeeze. It is not unusual for HMO start ups to cost as much as \$3 to \$4 million. Raising that amount of money from a group of physicians is extremely difficult. Typically, physicians are willing to contribute between \$500 and \$2,000 to the venture, but the \$10,000 or \$20,000 per physician that may be necessary in some cases is of a different order of magnitude.

As an alternative, some medical societies may wish to consider joint ventures with potential partners that are more heavily capitalized. Non-profit hospitals systems have already adopted this approach on a number of occasions. Of course, the partner may require the physician organization to give up the very thing that was central to the organization's decision to begin the program — physician control over the operation. Moreover, even where some control is retained it is not always easy to identify a partner with fully compatible goals and operational styles.

Because of the large cost of developing full-blown HMOs, a number of medical societies are looking towards the option of developing independent physician organizations or, IPOs. These organizations offer only the provider component of a managed care plan, without the high-cost insurance element. Thus, the IPO is available to contract with one or more HMOs, insurance companies, or self-insured employers. Typically, IPOs perform utilization re-

MANAGED CARE SYSTEMS/Continued

view and quality assurance functions for the organizations they contract with, and they may undertake other functions as well.

While decreased cost of development and operation are significant advantages, IPOs are ultimately dependent on other organizations being willing to contract with them on acceptable terms. Moreover, any unsuccessful negotiations with an organization that is followed by a "joint refusal" among physician participants of the IPO to participate with the organization whose terms have been rejected can easily create antitrust risks for the IPO and its participating physicians. In addition, the IPO is at greater antitrust risk because its development of payment methodologies for participating physicians may be attacked as illegal price fixing.

Identifying competent management is another extremely difficult task. At the present time the supply of people with experience in running managed health care plans is far less than the demand. As a result, any medical society considering the development of a plan is likely to find the identification and selection of an appropriate manager for its new plan to be extremely difficult. Because of this, a number of medical societies have considered signing management contracts with organizations whose primary responsibility is to provide those services.

There are, however, several difficulties with this approach. First, the arrangements tend to be expensive. Some management companies charge as much as 15% to 20% of gross premium as a management fee. Moreover, a management company can make money even if the plan never becomes profitable because fees are based on gross rather than net premium income. This can create a difference in goals between the plan and the company. Finally, the management companies themselves typically do not have a staff of experienced, competent managers ready to begin work with the contracting plan. Thus, on some occasions, the management company will have precisely the same problems recruiting that the plan would.

The difficulty in finding experienced and competent management is a problem for any new managed health care plan, but the problem is exacerbated for medical society sponsored plans. Running a managed care plan is a business which is very different from what medical societies traditionally do. In fact, the only other medical society activity that is analogous is the operation of a medical society professional liability insurance company. The

difficulties that have arisen from the development of these companies should, by themselves, give some pause to those entering the managed care arena.

Antitrust Issues

Assuming that the political and operational problems can be surmounted, there are legal problems as well. Principally, the developers of a medical society managed care plan must be concerned with the risk of antitrust liability — which can amount to three times the actual damages incurred by a competitor, or in rare instances, criminal liability.

The antitrust laws prohibit joint or concerted action which is anticompetitive in its purpose and effect. Because the independent physicians participating in a medical society sponsored plan, or any physician controlled plan, remain competitors in the eyes of the law, the development and control of a plan by independent physicians, by itself, creates the potential for attack on the grounds the plan amounts to the development of an anticompetitive organization.

Of course, there are things that can be done to substantially reduce antitrust risks. These include requiring that the physicians invest substantial funds in the organization, requiring that the organization and/or its participating physicians receive compensation on some sort of risk rather than fee for service basis, and limiting the participating physicians to the number required to effectively market the plan. These and other actions would cause the organization to be treated as a single unit or legitimate "joint venture," rather than an agreement between competitors.

This is important because failure to be viewed as a "joint venture" means that the organization's involvement in establishing a physician payment could be viewed as price fixing. Organizations that are not "joint ventures" should therefore insure the physician payment decisions are not made by competing physicians.

Joint Refusal

In addition, medical society sponsored plans, like other physician controlled plans, must insure that participating physicians do not, as a group, refuse to participate in other programs. It should be emphasized, of course, that each physician remains free to participate, or not to participate, in any plan. This is because, for the most part, the antitrust laws focus on joint, not unilateral activity. (The only exception to this involves the conduct of monopolists which is typically not the problem for emerging

managed care plans.) The problem arises where a number of physician participants elect not to participate. Then an illegal boycott or joint refusal could be inferred.

A variant of the "joint refusal to deal" — or "boycott" — is the exclusive contract. Under this arrangement physician participants agree not to participate in any other managed care plan. Such arrangements can be procompetitive where the percentage of physicians agreeing is relatively small and the organization is a "legitimate joint venture." However, the arrangement could be characterized as a "joint refusal" or "boycott" if the organization is not a "joint venture" or the number of physicians agreeing to the exclusive arrangement forecloses competitors from obtaining physicians.

The exclusion or expulsion of physicians from a medical society sponsored plan can also create antitrust risks. Perhaps the best way of minimizing this risk is to insure that all decisions are based on rational criteria which are applied uniformly, and that "due process" procedures are provided to those whose practice patterns have been challenged. In this connection, it is worth noting that the recently enacted Health Care Quality Improvement Act of 1986 provides a partial federal immunity for any disciplinary measure taken on the basis of the competence or professional conduct of the physician. The plan must insure, however, that the "due proc-

ess" standards established by the Act are met, and that the organization provides the required data to the federal government.

Other Issues

While antitrust concerns are most important, there are other legal issues which must be addressed as well. For example, licensing and regulatory requirements must be met in virtually every state — at least where an HMO is being proposed. In addition, any sale of stock to physicians must meet the requirements of the state securities laws and, if stock is sold to the physicians in other states, then federal securities laws must be satisfied as well. Moreover, in some states even membership fees will be treated as the offering of a security. Thus, these issues must always be checked.

In the face of these problems why would any medical society wish to sponsor a managed health care plan? The answer is contained in one word: control. Maximizing physician control in the new world of managed care plans is clearly paramount, even when the market requires the controlled organization to choose between two or more undesirable alternatives. Winston Churchill once said that democracy is the least attractive form of government — except for all others. The same might be said about physician controlled managed health care plans. ★★★



The President Speaking

A Bigger Pie

W. LAMAR WEEMS, M.D.
Jackson, Mississippi

The long bull market in the health care industry appears finally to be running out of steam. After thirty or forty years of exuberant expansion, the leading indicators, as they say, are sending strongly bearish signals. Physicians, in particular, are bracing for a recession. Too many doctors and a relentless determination by government and private industry to control costs spell trouble for future earnings. Conscious of these threats, physicians are increasingly inclined to listen to public relations consultants and practice management experts who tell them how to compete more effectively with each other for health care dollars. "Marketing" used to have odious connotations in medical circles, but now it seems to be necessary in order to maintain "market share." It doesn't take an economist to figure out that for every winner in this economic competition, there is going to be a loser. Unfortunately, winning and losing are likely to be less related to professional competence than to merchandising skills. With hucksterism winning such a victory over professionalism, the battle of the marketplace which is shaping up promises to be an ignoble chapter in the history of medicine.

Constrained by antitrust laws and by lack of public support, organized medicine doesn't seem capable of modulating competition among physicians very much. As a matter of fact, specialty societies will likely aggravate the situation by encouraging internecine conflicts over hospital privileges, case management, fee schedules, cognitive vs procedural services, and the like.

It may seem inappropriate in the present mood of things, but I believe that there is yet some potential to increase the total earnings of physicians in Mississippi if physicians can raise their sights above the fight over who gets the largest slice of a dwindling pie. Of course, any proposal coming from organized medicine these days which might cost more money and which stands to enhance physicians' earnings had better be accompanied by assurances of accountability for cost and quality, or else it will be dismissed out of hand by the people who pay the bills. However, for the most part, the public (businessmen included) don't object to spending whatever it takes to obtain high quality health care. They just have to be convinced that they are getting their money's worth.

(Continued on next page)

Organ Donor Law Has Deficiencies

In the 1987 session of the Mississippi Legislature, Senate Bill 2666 was passed into law and became effective on July 1, 1987. For those unfamiliar with SB 2666, it is a law regulating organ and tissue donor activities in the state of Mississippi. It specifically requires that every patient admitted to a hospital be questioned as to whether they are an organ donor or wish to become a donor. Written documentation of this questioning and the patient's answer must be placed in the hospital record. This procedure has to be repeated on every readmission to the hospital for any given patient.

This bill also mandates that all organ and tissue donor activity in the state of Mississippi be conducted through the organ procurement team at the University of Mississippi Medical Center.

At this time the Mississippi Hospital Association is developing an organ procurement protocol that will allow Mississippi hospitals to meet the requirements of the law.

This law was initiated and backed by individuals and groups interested in organ procurement and organ transplant surgery. While this law may be good for those individuals and groups, it is going to be very difficult for many physicians and hospitals to comply with. It also totally fails to take into consideration the circumstances for which a patient is being admitted to the hospital.

Patients, after receiving presurgical counseling in the physician's office — including reassurances that their risks are minimal, will appear at the hospital where the first question asked will be, "Are you an organ donor and if not would you like to become one?" The setting and timing of such questioning is totally inappropriate. Most people are not psychologically prepared for this at the time of elective or emergency hospitalization. Patients with chronic illnesses requiring frequent hospitalization will have

to go through this procedure on every admission.

Mississippi is a large state, and many hospitals are more directly related to regional medical centers other than the University Medical Center in Jackson. The failure to allow physician and patient participation in making decisions as to what will be done with donated tissues and organs and where it will be done is a very distracting part of the law.

While I am not against tissue and organ donation and transplantation, I consider this a poor way to force the issue on the patients and physicians of our state. Surely there is a better way to gain public interest and participation than forcing it upon them at a very trying time in their life. I also question forced participation in any program.

If this bill is not changed during the upcoming legislative session, its effect on the professional and lay public will be extremely negative, and appropriate advancements in organ and tissue transplantation will deteriorate rather than advance.

MYRON W. LOCKEY, M.D.
Editor

PRESIDENT'S PAGE

(Continued from page 282)

With a little ingenuity, MSMA might be able to identify some projects to actually expand the market for medical services. Examples:

1. Encourage and assist the legislature in meeting its responsibility to pay for health care for the medically indigent in Mississippi.
2. Promote acceptance of new technology and new services by payors and credentialing agencies.
3. Defend the superiority, in most cases, of care provided by physicians compared to lesser trained health care professionals.
4. Reduce the share of health care expenditures which is being absorbed (and largely wasted) by peripheral activities such as lawsuits, ad-

vertising, non-physician-directed utilization review, profiteering, and brokering of medical services.

5. Ostracize physicians who are wasting resources.
6. Discourage outmigration of private patients to other states.

Item number 6 deserves elaboration. The economy of Mississippi has traditionally been drained by adjacent metropolitan areas such as Memphis and New Orleans. Such was true of the cotton trade a hundred years ago and it is true in the health care industry today. A public official was quoted in a Jackson newspaper a few months ago as saying that 40 percent of private referrals from the Mississippi delta go to Memphis. The administrator of the North Mississippi Medical Center told me that, as recently as four years ago, 35 to 40 percent of expenditures for health care by residents of the Tupelo trade area were spent in Memphis. Mississippi Medicaid program spent six and one-half million dollars out of state last year. Blue Cross-Blue Shield of Mississippi generously put their computer to work on the question (a word of thanks to Tom Stevens) and came up with the information that 13.9% (\$4.2 million) of their payments to physicians and 19.3% (\$12.4 million) to hospitals went out of state in the year October '85–September '86. By all estimates, the loss to the economy of Mississippi through the purchase of health care out of state is substantial. The importance of the Mississippi market is not lost on hospitals in surrounding areas. I regularly receive advertising brochures from Birmingham, Mobile, New Orleans and Memphis. In addition, large hospitals in those cities are essentially colonizing Mississippi by the acquisition of smaller hospitals from which they expect to get referrals.

Quality of care is not a major issue in this migration. The health care system in Mississippi is on a par with any in the country. With few exceptions, patients can receive excellent care for their disease from Mississippi providers. Even deficiencies which do exist could readily be corrected if demand were generated by keeping patients at home. Cost, on the other hand, is a factor which should work in our favor. Medical costs in Mississippi are lower than in surrounding areas. We should be attracting out-of-state patients into Mississippi instead of losing our private patients inappropriately to higher cost centers.

The way to turn this trade deficit around is through

financial incentives in prepaid health care plans. In Tupelo, for example, the hospital and physicians recently collaborated in negotiating a contract with a local industry employing 1500 workers. The arrangement reduced that company's expenditures for health care in Memphis from 33% of their total health care costs to 17% in one year. The Mississippi Physicians Health Plan offers hospitals and physicians in Mississippi the opportunity to realize similar gains on a comprehensive, state-wide scale. This could turn out to be quite a bargain. If only 10% of physicians' fees currently paid out of state could be captured, the gain for physicians in Mississippi in one year would probably exceed the amount they have invested to capitalize the company. All we need to do is to write some contracts.

The attractive feature of the concept of working to expand the medical economy is that it brings physicians together. Specifically, such efforts stand to strengthen the Mississippi State Medical Association. If our goals are in line with our ethical commitments, the public interest will also be served by generally improving the health and economic well-being of all citizens.

LETTERS

TO DR. WEEMS:

I have just read your "Statement from the President" in the August 1987 issue of the JOURNAL MSMA, and applaud your statement.

I have been somewhat disturbed at times to read statements from former presidents generating a "woe is us" reactionary type position from the standpoint of organized medicine. I find your concern and your call for forthright involvement in trying to formulate a policy for the care of the medically indigent to be refreshing, and just wanted you to know my appreciation for this. It is most disturbing, I think, to consider the fact that we are the only industrialized nation in the world that does not have some kind of national health coverage insurance program, etc. I believe that no area should receive any greater effort than the needs of the medically indigent as far as we are concerned as organized medicine and as far as the entire country is concerned.

Again, thank you very much for your very helpful article.

C. NOLEN HUDSON, M.D.
Vicksburg, MS

MSMA Board of Trustees Conducts Summer Meeting

The Board of Trustees conducted its regular summer meeting on August 15 in the association's new office facilities on Riverside Drive in Jackson.

The Board acted on an extensive agenda to include referrals from the House of Delegates meeting in June and recommendations for specific projects to be implemented during the 1987-88 association year.

Based on actions by the House of Delegates at the recent annual session, the Board appointed a committee composed of its members to formulate a plan to address the issue of the growing medically uninsured population in our state. The committee was directed to consider the report of an "Indigent Care Study Committee" formed by the Mississippi Legislature in 1985 and programs adopted by other states to address the medically uninsured issue. The committee is to seek action by the 1988 Mississippi Legislature on this issue.

The Board also considered several programs enacted by various state and national medical societies to assist low income Medicare recipients in receiving necessary medical care. A committee of the Board will study the feasibility of implementing such a program through the cooperation of the MSMA membership and the Mississippi Chapter of the American Association of Retired Persons.

Again, based on action by the House of Delegates, the Board requested the Council on Medical Service to work with the Mississippi Medicaid Program to formulate a demonstration project case-manager program for consideration by the 1988 Mississippi Legislature. The Council was directed to establish well-defined parameters for the proposed program after giving consideration to operational casemanager programs in other states which had received strong support from the medical profession in those states. The Council is also to give support to those "Principles for Casemanager Programs" adopted by the House of Delegates which are:

1. Physicians are best suited for the role of patient casemanager.
2. Physicians who assume the casemanager function should possess broad clinical competence and appropriate training in primary care.

3. Specialists and subspecialists should be recognized as casemanagers for specialty care where appropriate.
4. The physicians providing case management services should be appropriately reimbursed for performing additional management/administrative functions associated with the role.
5. Patients should have a choice of health plans and the opportunity to voluntarily choose plans that best meet their health needs. Patients must be clearly informed in advance of any restrictions on their access to specialists that may result from their choice of alternative delivery systems. They should not be "locked-in" to receiving care from any one physician but allowed the freedom to select another physician as their patient case-manager at specified times.

The Board extensively discussed the issue of tort reform and considers this the association's top legislative priority in 1988. A report and recommendation from a recent independent study of medical malpractice by the General Accounting Office (an investigative arm of Congress) will serve as the basis for the association's legislative program on this issue. The report recommends:

- Shortened statute of limitations;
- Limits on fees to plaintiff lawyers;
- Reasonable caps on non-economic losses;
- Revised joint and several liability laws to require that provider damages be proportionate to degree of responsibility;
- Periodic payment of large awards;
- Mandatory reductions of awards by amounts paid by collateral sources.

The Board received a report from a management consultant which critiqued the current operational status of the MSMA sponsored HMO/IPA. The consultant was retained by the Board based on concerns expressed at the recent annual meeting of the House of Delegates. The consultant's report was both supportive and constructive to the HMO/IPA efforts and will be conveyed to the Boards of those organizations for consideration and implementation.

The Board also acted to retain legal counsel to vigorously oppose a recent ruling of the Mississippi Ethics Commission which in effect prevents a medical staff member from serving on a hospital governing board. The first step the association will take

will be to ask the Commission for a rehearing on its ruling.

The Board received a status report on a recent suit filed against the Medical Assurance Company of Mississippi (MACM) requesting that the company be placed in receivership. The Board is confident of assurances received that MACM is financially viable and the suit will be contested to the fullest.

In other actions the Board received a report on the Mississippi Medical Political Action Committee's (MMPAC) batting average in the first primary elections for legislative candidates. MMPAC had an 85 percent success rate.

The Board also adopted a resolution of support for the "SuperCollider Project" being considered by the Legislature.

Finally, the Board concluded its meeting by setting November 20-21 as the building dedication weekend for the association's new offices on Riverside Drive in Jackson. This will be the weekend of the Ole Mississippi-Mississippi State football game, and present plans call for the building to be dedicated on Friday afternoon, November 20, with an open house on Saturday morning, November 21, prior to the game.



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Funeral Services Held For Dr. James O. Gilmore

Funeral services were held September 9 in Oxford for Dr. James O. Gilmore, who died at Oxford-Lafayette Medical Center.

Dr. Gilmore, a past president of the Mississippi State Medical Association, had also served as chairman of the MSMA Board of Trustees and as delegate to the American Medical Association.

"The University of Mississippi, Oxford, and the Mississippi medical profession lost one of its most beloved citizens," said one news writer in a tribute to the 64-year-old family physician.

"He was really a force in the community and his services will be missed by many," said Oxford Mayor John Leslie, one of Gilmore's longtime friends.

Dr. Gilmore was born in Crawford and attended Macon County High and the University of Mississippi. He received his medical degree from Northwestern University in Chicago. He had practiced medicine in Oxford since 1956.

Dr. Gilmore was a World War II veteran who served in the U.S. Navy as a medical corpsman.

He was a fellow of the American Academy of Family Practice, a member of Southern Medical Association and a member of North Mississippi Medical Society.

He was a member of St. Paul Independent Methodist Church where he served as a steward. He also was a Mason, a member of the Veterans of Foreign Wars, and a member of the Quarterback Club.

Survivors include his wife, Eula Curtis Gilmore, a daughter, Emily Jean Gilmore, two sons, Dr. James C. Gilmore and George David Gilmore, and four grandchildren.

Next Month In JOURNAL MSMA

- **Maternal Mortality in Mississippi: 1981-1986**
- **Orthopaedic Management of Myelomeningocele: Part B — Specific Orthopaedic Procedures**
- **Radiological Seminar CCXLVII: Imaging of Carpal Navicular Fractures**

Faculty Appointments Announced at UMC

Twelve have been named in medical, nursing, health related professions, dental and centerwide faculty appointments at the University of Mississippi Medical Center for the current academic session.

Dr. Norman C. Nelson, UMC vice chancellor for health affairs, announced the appointments following approval by the Board of Trustees of State Institutions of Higher Learning.

Appointed in the School of Medicine were Dr. Henry Shih-Houng Hsu, assistant professor of preventive medicine; Dr. Judith A. Lyons, assistant professor of psychiatry and human behavior (psychology); Dr. J. Keith Mansel, assistant professor of medicine; Dr. Edward F. Sbardella, assistant professor of psychiatry and human behavior; and Gloria Laine Stack, instructor in psychiatry and human behavior (social work).

Named to the School of Nursing faculty were Anthelyn J. Smith and Katherine F. Watts, assistant professors of nursing, and Kim W. Truesdale, instructor in nursing.

In the School of Health Related Professions, Dr. Robert B. Weaver was named associate professor of physical therapy.

Dr. James P. Purvis was appointed assistant professor of periodontics in the dental school.

Centerwide, Dr. William A. Roy and Dr. Susan Warren were named assistant professors of anatomy.

Dr. Hsu earned the B.P.H. in 1976 and the M.P.H. in 1980 at the National Taiwan University Medical College. He received the M.P.H. in 1981 and the Ph.D. in 1985 from the University of Michigan. He has been visiting assistant professor of statistics at Texas A&M University since 1985.

Dr. Lyons earned the B.A. in 1979 at McGill University and in 1980 did her internship in clinical

psychology at the Montreal General Hospital. She earned the M.A. in 1982 and the Ph.D. in 1985 at Concordia University, and in 1985, did an internship in clinical psychology at UMC. She was counselor with the Southern National Health Services, Inc., from 1977-1978 in Manchester, New Hampshire, and a group therapist from 1983-1984 at Montreal, Canada. She had been clinical director for the Traumatic Stress Disorder Center at the Veterans Administration Medical Center in Boston, Massachusetts since 1985, and a clinical assistant professor of psychiatry (psychology) at Tufts University New England Medical Center since 1986.

Dr. Mansel, who earned the B.S. in 1975 at Ole Miss and the M.D. in 1979 at UMC, completed his residency in 1982, and a fellowship in thoracic disease in 1985 at Mayo Graduate School of Medicine. He has been in private practice in Jackson since 1985.

Dr. Sbardella attended Tulane University and is a 1965 graduate of Louisiana State University. He earned the M.D. in 1969 at UMC. He completed his internship in 1970 and a residency in 1975 at the U.S. Air Force Medical Center at Keesler. He completed a residency in psychiatry in 1986 at UMC, and completed a fellowship in child psychiatry before his faculty appointment. Dr. Sbardella, a lieutenant colonel in the U.S. Air Force from 1968-1978, was a staff physician at the USAF Hospital Lakenheath from 1975-1978. After a year's private practice in Biloxi, he joined the medical staff at the Gulf Coast Community Hospital from 1979-1982, and was a flight surgeon with the USAF Reserve from 1978-1986. He also served as medical director of the Delta Women's Center at Gulfport from 1981-1983, and has been a flight surgeon with the Mississippi Air National Guard since 1986.

Ms. Stack earned the B.A. in 1970 at Ole Miss, and the M.S.W. in 1987 at the University of Southern Mississippi. She completed her internship in child psychiatry at UMC in 1987.

Patient Information Brochures/Services Available from MSMA

- "CommuniCare" Brochures
- Health Care Cost Brochures
- Patient Survey Forms
- "Changes in Health Care: What Your Family Should Know"
- AIDS Speakers Bureau

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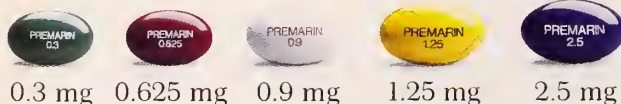
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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS.)

PREMARIN® Brand of conjugated estrogens tablets, USP

PREMARIN® Brand of conjugated estrogens Vaginal Cream, in a nonliquefying base

1. ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA. Three independent, case-controlled studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case-controlled studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semi-annual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration, if therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equi-estrogenic doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY. The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing, in later life, a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects. One case-controlled study estimated a 4.7-fold increased risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mares' urine. It contains estrone, equilin, and 17 α -dihydroequilin, together with smaller amounts of 17 α -estradiol, equilin, and 17 α -dihydroequilin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP). Moderate-to-severe vasomotor symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) Osteoporosis (abnormally low bone mass). Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae.

PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens (see PRECAUTIONS). The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (see Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Estrogens have been reported to increase the risk of endometrial carcinoma (see Boxed Warning). However, a recent large, case-controlled study indicated no increase in risk of breast cancer in postmenopausal women. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement, if it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism, and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention, such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Pre-existing uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not yet complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

- Increased subfibrinolytic fibrin retention.
 - Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability.
 - Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T_3 by column, or T_4 by radioimmunoassay. Free T_3 resin uptake is decreased, reflecting the elevated TBG; free T_4 concentration is unaltered.
 - Impaired glucose tolerance.
 - Decreased pregnandiol excretion.
 - Reduced response to methylparathion test.
 - Reduced serum folate concentration.
 - Increased serum fringlyceride and phospholipid concentration.
- As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

Long-term, continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. However, in a recent, large case-controlled study of postmenopausal women there was no increase in risk of breast cancer with use of conjugated estrogens.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome, amenorrhea during and after treatment, increase in size of uterine leiomyomata, vaginal candidiasis, change in cervical erosion and in degree of cervical secretion, cystitis-like syndrome, tenderness, enlargement, secretion (of breasts), nausea, vomiting, abdominal cramps, bloating, cholestatic jaundice, chloasma or melasma (may persist when drug is discontinued), erythema multiforme, erythema nodosum, hemorrhagic eruption, loss of scalp hair, hirsutism, sleep apnea of corneal curvature, chorea, increase or decrease in weight, reduced carbohydrate tolerance, migraine, dizziness, mental depression, chorea, increase or decrease in weight, reduced carbohydrate tolerance, aggravation of porphyria, edema, changes in libido.

ACUTE OVERDOSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSEAGE AND ADMINISTRATION:

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1. *Given cyclically for short-term use only.* For treatment of moderate-to-severe vasomotor symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 mg to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. *Given cyclically.* Osteoporosis: Female castration. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off). Female castration—1.25 mg daily cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three- to six-month intervals.

Usual dosage range: 2 g to 4 g daily intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

References:

- Lindsay R, Hart DM, Clark OM. The minimum effective dose of estrogen for prevention of postmenopausal bone loss. *Obstet Gynecol* 1984;63:759-763.
- Studd JWW, Thom MH, Paterson MEL, et al. The prevention and treatment of endometrial pathology in postmenopausal women receiving exogenous estrogens. In Pasetto N, Paoletti R, Ambrus JL (eds). *The Menopause and Postmenopause*. Lancaster, England: MTP Press Ltd, 1980, chap 13.

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PERSONALS

ORLANDO ANDY of UMC presented an abstract at the Fifth World Conference on Pain in Hamburg, Germany.

WILL K. AUSTIN and VERNER S. HOLMES of McComb announce the association of LAWRENCE EDESEL STEWART for the practice of otolaryngology, head and neck surgery, and facial plastic surgery.

GENE R. BARRETT of Jackson was present at orthopaedic grand rounds and was visiting lecturer at Parkland Hospital in Dallas, Texas.

WILLIAM O. BOBO of Jackson announces that he has legally taken his mother's maiden name of Thompson to use in addition to and after that of Bobo, and will hereafter be known as William Owen Bobo Thompson.

CARLEE BLAMPHIN has joined Southwest Mississippi Mental Health Complex as staff psychiatrist at the centers in Brookhaven, McComb and Natchez.

DUDLEY S. BURWELL, JR. has joined the medical staff of Gulf Coast Community Hospital and opened his practice of orthopedic surgery and arthroscopy at Coastal Medical Center.

ROBERT P. CHIZEN has joined Kemper County Medical Clinic in DeKalb for the practice of family medicine in association with PRENTISS F. KEYES and JIMMIE L. SMITH.

RODNEY FROTHINGHAM of Greenville was named Physician of the Year by the Mississippi Society of Medical Assistants. He is active with the Society at local, state and national levels, and currently serves as vice chairman of the Curriculum Review Board.

JAMES HARDY of UMC is one of three physicians appointed to the Veterans Administration Distinguished Physicians Program, and is one of twelve physicians in the country to serve in the program.

JACK G. HUDSON and MICHAEL G. MAY of Columbia announce the association of A. T. TATUM and NANCY O. TATUM for the practice of family medicine.

W. CECIL JOHNSON of Meridian announces the association of ROBERT J. BERG in the practice of general and thoracic surgery.

JOE JOHNSTON of Mount Olive has been selected as one of the top ten family doctors in the United States by the American Academy of Family Physicians.

ELIZABETH KEELING has associated with Northwest Rankin Pediatric and Adolescent Clinic, 9103 Highway 25 in Brandon, for the practice of pediatrics and adolescent medicine.

WILLIAM F. KROOSS announces the association of MICHAEL H. ALBERT for the practice of family medicine at the Family Medical Clinic, 175 Boyington Oaks in Pearl.

WAYNE T. LAMAR of Oxford announces the association of MICHAEL RAY HAJEK for the practice of orthopedic surgery.

THOMAS D. LITTLE of Meridian has been elected as advisory director for the Meridian Division of First United Bank.

JAMES N. MARTIN of UMC participated in a Perinatal Outreach Education workshop in Laurel.

CONNIE MCCAA of UMC was speaker and moderator for a seminar on the Toxicology of Special Senses in Washington, DC.

FRANCIS MORRISON of UMC was a delegate to the South Central Association of Blood Banks annual meeting in Austin, Texas.

JOHN MORRISON of UMC lectured at an American College of Obstetricians and Gynecologists district meeting in Bozeman, Montana, and presented grand rounds at the University of Texas Southwestern Medical School at Dallas, Texas.

NORMAN NELSON of UMC spoke at a meeting of the Northeast Mississippi Medical Society in Tupelo.

THOMAS R. NEUMANN announces the opening of the Natchez Regional Oncology Center for the practice of radiation oncology at 133 Jefferson Davis Boulevard in Natchez.

SAM PACE of Tupelo recently was elected secretary-treasurer of the Mississippi Gastroenterology Society.

CLYDE B. PHILLIPS of Tupelo performed North Mississippi Medical Center's first total shoulder joint replacement in July.

Obstetrics-Gynecology Associates, P.A. of Tupelo announces the retirement of P. K. THOMAS and the association of WAYNE A. SLOCUM for the practice of obstetrics and gynecology.

WILLIAM M. ROSS announces the opening of his office for general practice of medicine at 2006 Robertson Drive in Corinth.

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PERSONALS/Continued

JOHN R. SHELL of Vicksburg has been re-elected to the Mississippi State Board of Medical Licensure and is serving as president. Other officers are W. W. WALLEY of Waynesboro, vice president, and WALTER H. ROSE of Indianola, secretary.

DAVID B. STEPHENS of Hattiesburg recently was recognized by Forrest General Hospital for performing his 300th open heart procedure.

JOHN G. SHIELDS of Ackerman was honored with a reception at the Choctaw County Hospital upon his certification as a diplomate of the American Board of Obstetrics and Gynecology.

JAMES C. WAITES of Laurel was named Family Doctor of the Year by the Mississippi Academy of Family Physicians.

JESSE C. WILLIAMS of Columbus announces the association of JOSEPH H. AVERY, III for the practice of internal medicine and DEBRA J. GABRIEL for the practice of pediatrics and adolescent medicine at Columbus Family Health Center.

LAMAR WEEMS of UMC attended a meeting in Chicago of the Council on Hospital Medical Staffs of the American Hospital Association.

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To find out about the benefits of serving with a nearby Army Reserve unit, we recommend you call our Army Medical Personnel Counselor.

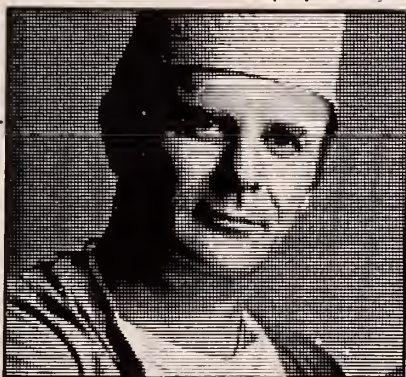
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Medico-Legal Brief

Medical Society Challenges Podiatry Board Ruling

A trial court should not have granted motions to dismiss a suit by a medical society and a physician who challenged a ruling by the Board of Examiners in Podiatry that the scope of practice of podiatry includes treatment of ankle ailments, the Connecticut Supreme Court ruled.

In January 1984, an insurance company acting on behalf of Medicare issued a bulletin that Medicare would no longer pay for services provided by podiatrists involving problems with the ankle. In response to the bulletin, the Board of Examiners in Podiatry requested the Attorney General of Connecticut to issue a legal opinion on whether treatment of the ankle was within the scope of podiatry practice as defined by law. The Attorney General declined, indicating that resolution of that question would entail a factual determination regarding the relationship between the foot and the ankle.

The Board of Examiners in Podiatry then held a hearing and issued a declaratory ruling that because

"the ankle is part of the foot, and the foot is part of the ankle," the treatment of ankle problems was within the scope of podiatry practice in Connecticut.

A physician and the state medical society appealed to a trial court. The court dismissed their actions, claiming that it had no jurisdiction over the subject matter.

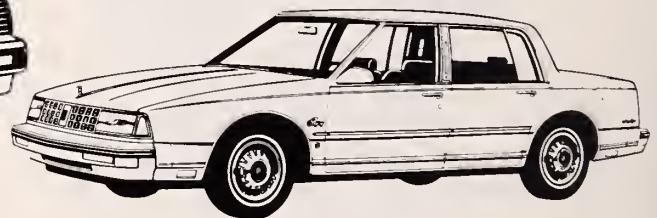
Reversing the decision, the Connecticut Supreme Court said that the physician had effectively alleged that his anticipated loss of revenues because of the Board's ruling would result from competition that was unfair or illegal. The court said that he had standing to appeal that ruling. The physician alleged that the Board was without authority to expand the practice of podiatry. The medical society's standing was established by its bylaws, which included the promotion of high quality medical care that benefited the public. The court noted that an expansion of podiatry practice, if unwarranted, threatened to erode the level of medical care available to the public. The court remanded the case to the trial court for further proceedings. — *Connecticut State Medical Society v. Connecticut Board of Examiners in Podiatry*, Docket No. 12938 (Conn. Sup. Ct., April 21, 1987)

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Twenty years ago the October JOURNAL MSMA carried an editorial entitled, "Smoking and Health: Trouble Is 100 mm Long." The article commended private organizations, government health agencies, and medical societies for their educational efforts about the hazards of smoking, and observed that Congress was again holding hearings on the issue.

The writer acknowledged that "understandably, medical organization is so caught up in scientific and policy challenges on every front that it finds itself in the uncomfortable posture of having to assign priorities to issues to be met. And since the issue of financing medical care — and who will do the financing — is crucial . . . it is receiving the attention of the organizational artillery."

Prophetically, the writer stated, "This is not . . . to say that smoking and health and a plethora of equally important subjects are being ignored, because as with individuals, governments, and nations a time will come for each." And he concluded that "What is needed is education — massive education — where the facts are marshalled and forthrightly presented with equal time. . . ."

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News accounts in the October 1967 issue included an article about Dr. David Wilson of Jackson, who had been inaugurated as president of the American Hospital Association. Another article noted that the University of Mississippi School of Medicine had admitted 85 students to the freshman class.

Scientific articles in that issue included: "Recent Advances in Trauma," by Dr. Richard J. Field, Jr. of Centreville; "Gallstone Ileus," by Dr. A. Wayne Sullivan of Meridian; "Coronary Heart Disease: Part V," by Dr. William H. Rosenblatt of Jackson; and "Lupus Erythematosus," by Dr. Virginia S. Tolbert of Ruleville.

Ten years ago the October issue carried a message on health care costs by then-president Dr. James O. Gilmore and an editorial on emergency medical services in Mississippi by Dr. W. Briggs Hopson of Vicksburg.

A news story in that same 1977 issue noted that 150 freshmen had been admitted to the University of Mississippi School of Medicine.

Scientific articles included "Transnasal Approach to the Pituitary Gland," by Drs. Robert R. Smith, Myron Lockey, Dale Read, and Patrick Lillard, of Jackson; "Gallstones and Cheotherapy," by Dr. Walter T. Boone of Jackson; and "Sarcomatosis" by Dr. June Blount of Jackson.

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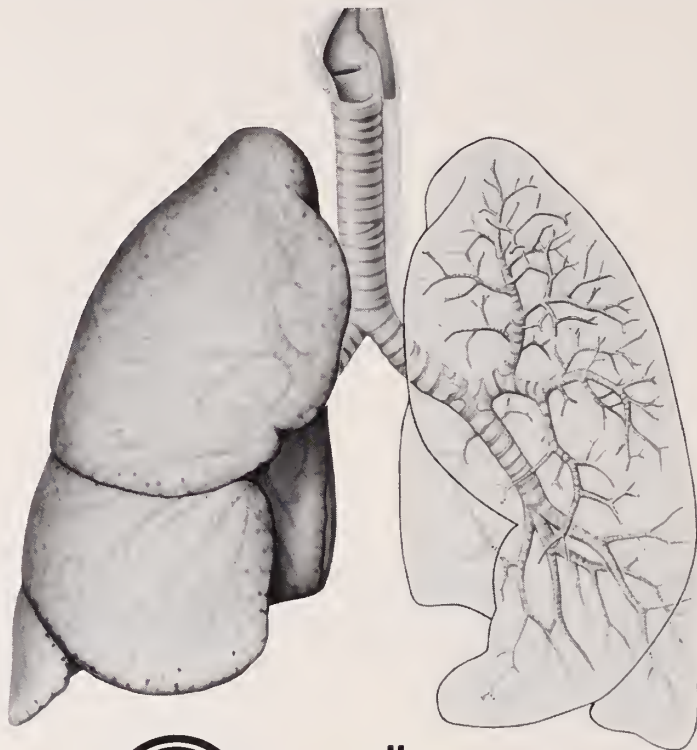


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- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)
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- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] or the above skin manifestations accompanied by arthritis/arthritis and, frequently, fever): 1.5%; usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness,

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- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

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References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list. Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

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Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

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References: 1. Feighner JP, et al: *Psychopharmacology* 61: 217-225, Mar 22, 1979. 2. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

Limbitrol[®] ^{IV} Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. When tricyclic antidepressants are used concomitantly with cimetidine (Tagamet), clinically significant effects have been reported involving delayed elimination and increasing steady state concentrations of the tricyclic drugs. Concomitant use of Limbitrol with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring

reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestations and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol DS (double strength) Tablets, initial dosage at three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt). Available in bottles of 100 and 500, Tel-E-Dose[®] packages of 100, Prescription Paks of 50.



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Please see summary of product information on adjacent page.

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OCT 28 1988

JOURNAL

OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

NOVEMBER

1987

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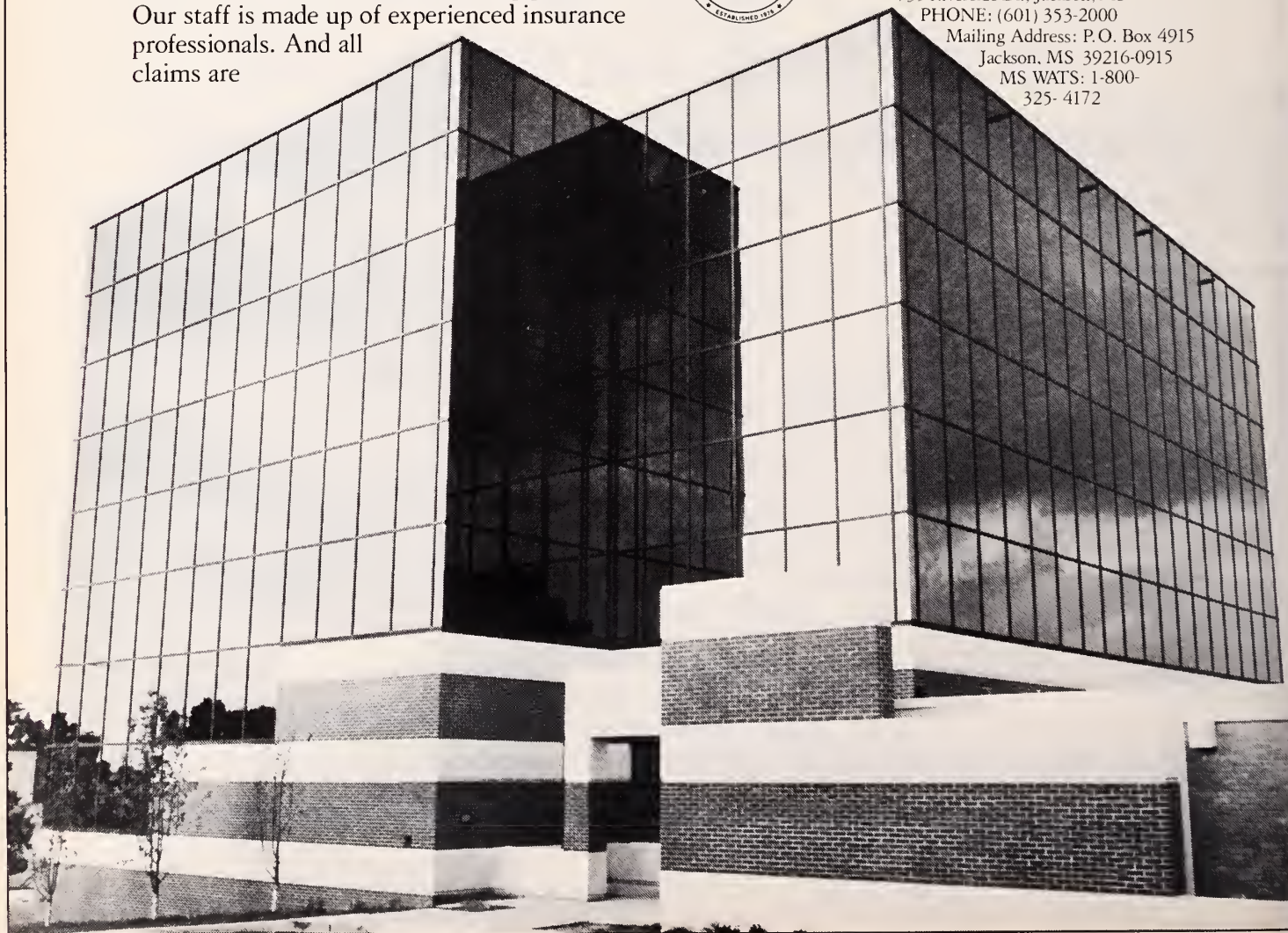
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NEWSLETTER

November 1987

Dear Doctor:

Regulations expanding the scope of chiropractic in California became effective in September, and are being challenged by the California Medical Association. The new regulations, which previously had been disapproved, authorize the advertising of and practice of "chiropractic pre-natal and post-natal care, manipulations of soft tissues, colonic irrigations, enemas, physical therapy, thermography and ultrasound." CMA also is challenging a provision authorizing chiropractors to "diagnose and treat a condition, disease or injury" within the scope of practice. One proposal by the Board of Chiropractic Examiners to authorize chiropractors to pierce skin for blood tests was not allowed.

CMA's president Frederick S. Armstrong, M.D., received a standing ovation after delivering an extemporaneous speech at a meeting of the California Chiropractic Association, reports California Physician. In his remarks, he outlined preconditions for initiating dialogue between the professions, including: that chiropractic have a scientific basis for all theory and practice; that chiropractic research be scrutinized by the finest scientific journals; that chiropractic schools be upgraded so that they can be a part of prestigious universities; and that chiropractors acknowledge, as most physicians do, that radiology is a field for specialists and agree to not use office x-ray units. He also stated that chiropractors should limit their role to the treatment of musculoskeletal disorders.

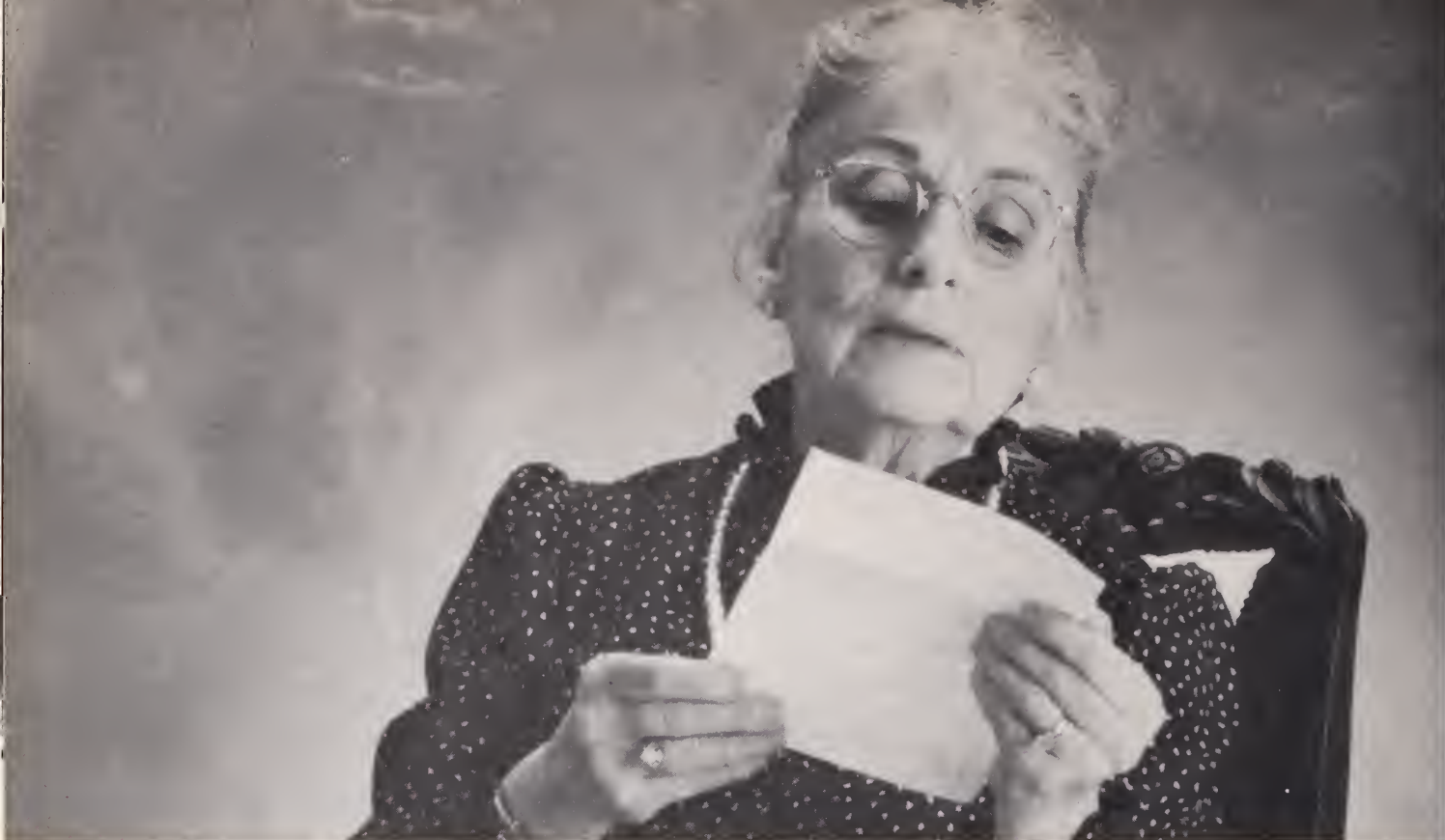
Mississippi Medicaid expenditures increased to \$29 million for the 1987 fiscal year, compared with \$23.6 million in FY 1986. In the first two months of this fiscal year, expenditures already are \$6 million more than the same time last year.

Mark your calendars now and plan to attend the MSMA's 120th Annual Session, June 15-19 in Biloxi.

Sincerely,



Patsy Silver
Managing Editor



MARGARET WILSON RECEIVED HER DOCTOR'S BILL TODAY. AND SHE'LL PAY IT... JUST AS SOON AS SHE FIGURES IT OUT.

The problem is right in front of you. If your patients can't understand the statements you send them, they won't pay as quickly as you'd like. You'll probably receive a lot of unnecessary phone calls from confused patients demanding an explanation. And some patients may even decide to change doctors altogether. Perhaps *you* should make a change—to Independent Computer Service. We're the single-source solution to *all* your practice management problems. From patient accounting, automatic insurance billing, and electronic claims submission, to medical records, data base analysis, and word processing, our MENDS® II Practice Management System takes care of your business so you can take care of your patients. At I.C.S., we can provide the solutions to all your computer needs—including hardware and software selection, financing, installation, training, service, forms, and support. And, since we're part of Contel Corporation, a multi-billion dollar information services organization, we have the financial resources to serve you now, as well as in the future. If you think your practice could benefit from our single-source expertise, call us at (601) 353-8073. We'll help you explain the services you provide more clearly than ever before.



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NEW Keflet Tablets are available as:



Keflet is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-sensitive patients.

Brief Summary. Consult the package literature for prescribing information. Indications and Usage: Keflet[®] Tablets (cephalexin, Dista) are indicated for the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Respiratory tract infections caused by *Streptococcus pneumoniae* and group A β -hemolytic streptococci (Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. Keflet is generally effective in the eradication of streptococci from the nasopharynx; however, substantial data establishing the efficacy of Keflet in the subsequent prevention of rheumatic fever are not available at present.)

Otitis media due to *S. pneumoniae*, *Haemophilus influenzae*, staphylococci, streptococci, and *Neisseria catarrhalis*

Skin and skin structure infections caused by staphylococci and/or streptococci

Bone infections caused by staphylococci and/or *Proteus mirabilis*

Genitourinary tract infections, including acute prostatitis, caused by *Escherichia coli*, *P. mirabilis*, and *Klebsiella* sp.

Note: Culture and susceptibility tests should be initiated prior to and during therapy. Renal function studies should be performed when indicated.

Contraindication: Keflet is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: BEFORE CEPHALEXIN THERAPY IS INSTITUTED, CAREFUL INQUIRY SHOULD BE MADE CONCERNING PREVIOUS HYPERSENSITIVITY REACTIONS TO CEPHALOSPORINS AND PENICILLIN. CEPHALOSPORIN C DERIVATIVES SHOULD BE GIVEN CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS

SERIOUS ACUTE HYPERSENSITIVITY REACTIONS MAY REQUIRE EPINEPHRINE AND OTHER EMERGENCY MEASURES

There is some clinical and laboratory evidence of partial cross-allergenicity of the penicillins and the cephalosporins. Patients have been reported to have had severe reactions (including anaphylaxis) to both drugs.

Any patient who has demonstrated some form of allergy, particularly to drugs, should receive antibiotics cautiously. No exception should be made with regard to Keflet.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Usage in Pregnancy: Safety of this product for use during pregnancy has not been established.

Precautions: General:—Patients should be followed carefully so that any side effects or unusual manifestations of drug idiosyncrasy may be detected. If an allergic reaction to Keflet occurs, the drug should be discontinued and the patient treated with the usual agents (eg, epinephrine or other pressor amines, antihistamines, or corticosteroids).

Prolonged use of Keflet may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematology studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Keflet should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

As a result of administration of Keflet, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix[®] tablets but not with Tes-Tape[®] (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B:—The daily oral administration of cephalexin to rats in doses of 250 or 500 mg/kg prior to and during pregnancy, or to rats and mice during the period of organogenesis only, had no adverse effect on fertility, fetal viability, fetal weight, or litter size. Note that the safety of cephalexin during pregnancy in humans has not been established.

Cephalexin showed no enhanced toxicity in weanling and newborn rats as compared with adult animals. Nevertheless, because the studies in humans cannot rule out the possibility of harm, Keflet should be used during pregnancy only if clearly needed.

Nursing Mothers:—The excretion of cephalexin in the milk increased up to 4 hours after a 500-mg dose; the drug reached a maximum level of 4 μ g/mL, then decreased gradually, and had disappeared 8 hours after administration. Caution should be exercised when Keflet is administered to a nursing woman.

Adverse Reactions: Gastrointestinal:—Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely. The most frequent side effect has been diarrhea. It was very rarely severe enough to warrant cessation of therapy. Dyspepsia and abdominal pain have also occurred. As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.

Hypersensitivity:—Allergic reactions in the form of rash, urticaria, angioedema, and, rarely, erythema multiforme, Stevens-Johnson Syndrome, or toxic epidermal necrolysis have been observed. These reactions usually subsided upon discontinuation of the drug. Anaphylaxis has also been reported.

Other reactions have included genital and anal pruritus, genital moniliasis, vaginitis and vaginal discharge, dizziness, fatigue, and headache. Reversible interstitial nephritis has been reported rarely. Eosinophilia, neutropenia, thrombocytopenia, and slight elevations in SGOT and SGPT have been reported.


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A woman with dark hair, wearing a bright orange long-sleeved shirt and black pants, sits alone at a small white metal table in an outdoor cafe setting. She is looking down with a somber expression. The cafe has many similar empty tables and white metal chairs with heart-shaped backs. The background is a rustic wooden wall.

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Coping with genital herpes is rarely easy. For some, the worst part is the pain and discomfort of frequent attacks — month after month, year after year. For others, the emotional burden presents a more difficult problem, leading to social isolation, anxiety, and diminished self-esteem.

Prevent or reduce recurrences

Although your patients have to live with herpes, they shouldn't have to suffer. Daily therapy with ZOVIRAX CAPSULES can help free them from the cycle of recurrent genital herpes. For many, one capsule three times a day can suppress recurrences completely while on therapy.

Generally well tolerated

Daily therapy with ZOVIRAX CAPSULES is generally well tolerated. The most frequent adverse reactions reported during clinical trials were headache, diarrhea, nausea/vomiting, vertigo, and arthralgia.

The physical and emotional difficulties posed by genital herpes are unique for each patient. The frequency and severity of recurrent episodes, as well as the emotional impact of the disease, should be considered when selecting daily therapy with ZOVIRAX CAPSULES.

Please see brief summary of prescribing information on next page.



Prevent recurrences month after month*

ZOVIRAX®

(acyclovir) CAPSULES

Brief Summary

INDICATIONS AND USAGE: Zovirax Capsules are indicated for the treatment of initial episodes and the management of recurrent episodes of genital herpes in certain patients.

The severity of disease is variable depending upon the immune status of the patient, the frequency and duration of episodes, and the degree of cutaneous or systemic involvement. These factors should determine patient management, which may include symptomatic support and counseling only, or the institution of specific therapy. The physical, emotional and psycho-social difficulties posed by herpes infections as well as the degree of debilitation, particularly in immunocompromised patients, are unique for each patient, and the physician should determine therapeutic alternatives based on his or her understanding of the individual patient's needs. Thus Zovirax Capsules are not appropriate in treating all genital herpes infections. The following guidelines may be useful in weighing the benefit/risk considerations in specific disease categories:

First Episodes (primary and nonprimary infections — commonly known as initial genital herpes):

Double-blind, placebo-controlled studies have demonstrated that orally administered Zovirax significantly reduced the duration of acute infection (detection of virus in lesions by tissue culture) and lesion healing. The duration of pain and new lesion formation was decreased in some patient groups. The promptness of initiation of therapy and/or the patient's prior exposure to Herpes simplex virus may influence the degree of benefit from therapy. Patients with mild disease may derive less benefit than those with more severe episodes. In patients with extremely severe episodes, in which prostration, central nervous system involvement, urinary retention or inability to take oral medication require hospitalization and more aggressive management, therapy may be best initiated with intravenous Zovirax.

Recurrent Episodes:

Double-blind, placebo-controlled studies in patients with frequent recurrences (6 or more episodes per year) have shown that Zovirax Capsules given for 4 to 6 months prevented or reduced the frequency and/or severity of recurrences in greater than 95% of patients. Clinical recurrences were prevented in 40 to 75% of patients. Some patients experienced increased severity of the first episode following cessation of therapy; the severity of subsequent episodes and the effect on the natural history of the disease are still under study.

The safety and efficacy of orally administered acyclovir in the suppression of frequent episodes of genital herpes have been established only for up to 6 months. Chronic suppressive therapy is most appropriate when, in the judgement of the physician, the benefits of such a regimen outweigh known or potential adverse effects. In general, Zovirax Capsules should not be used for the suppression of recurrent disease in mildly affected patients. Unanswered questions concerning the human relevance of *in vitro* mutagenicity studies and reproductive toxicity studies in animals given very high doses of acyclovir for short periods (see Carcinogenesis, Mutagenesis, Impairment of Fertility) should be borne in mind when designing long-term management for individual patients. Discussion of these issues with patients will provide them the opportunity to weigh the potential for toxicity against the severity of their disease. Thus, this regimen should be considered only for appropriate patients and only for six months until the results of ongoing studies allow a more precise evaluation of the benefit/risk assessment of prolonged therapy.

Limited studies have shown that there are certain patients for whom intermittent short-term treatment of recurrent episodes is effective. This approach may be more appropriate than a suppressive regimen in patients with infrequent recurrences.

Immunocompromised patients with recurrent herpes infections can be treated with either intermittent or chronic suppressive therapy. Clinically significant resistance, although rare, is more likely to be seen with prolonged or repeated therapy in severely immunocompromised patients with active lesions.

CONTRAINDICATIONS: Zovirax Capsules are contraindicated for patients who develop hypersensitivity or intolerance to the components of the formulation.

WARNINGS: Zovirax Capsules are intended for oral ingestion only.

PRECAUTIONS: General: Zovirax has caused decreased spermatogenesis at high doses in some animals and mutagenesis in some acute studies at high concentrations of drug (see PRECAUTIONS — Carcinogenesis, Mutagenesis, Impairment of Fertility). The recommended dosage and length of treatment should not be exceeded (see DOSAGE AND ADMINISTRATION).

Exposure of Herpes simplex isolates to acyclovir *in vitro* can lead to the emergence of less sensitive viruses. The possibility of the appearance of less sensitive viruses in man must be borne in mind when treating patients. The relationship between the *in vitro* sensitivity of Herpes simplex virus to acyclovir and clinical response to therapy has yet to be established.

Because of the possibility that less sensitive virus may be selected in patients who are receiving acyclovir, all patients should be advised to take particular care to avoid potential transmission of virus if active lesions are present while they are on therapy. In severely immunocompromised patients, the physician should be aware that prolonged or repeated courses of acyclovir may result in selection of resistant viruses which may not fully respond to continued acyclovir therapy.

Drug Interactions: Co-administration of probenecid with intravenous acyclovir has been shown to increase the mean half-life and the area under the concentration-time curve. Urinary excretion and renal clearance were correspondingly reduced.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Acyclovir was tested in lifetime bioassays in rats and mice at single daily doses of 50, 150 and 450 mg/kg given by gavage. There was no statistically significant difference in the incidence of tumors between treated and control animals, nor did acyclovir shorten the latency of tumors. In 2 *in vitro* cell transformation assays, used to provide preliminary assessment of potential oncogenicity in advance of these more definitive life-time bioassays in rodents, conflicting results were obtained. Acyclovir was positive at the highest dose used in one system and the resulting morphologically transformed cells formed tumors when inoculated into immunosuppressed, syngeneic, weanling mice. Acyclovir was negative in another transformation system considered less sensitive.

In acute studies, there was an increase, not statistically significant, in the incidence of chromosomal damage at maximum tolerated parenteral doses of 100 mg/kg acyclovir in rats but not Chinese hamsters; higher doses of 500 and 1000 mg/kg were clastogenic in Chinese hamsters. In addition, no activity was found after 5 days dosing in a dominant lethal study in mice. In 6 of 11 microbial and mammalian cell assays, no evidence of mutagenicity was observed. At 3 loci in a Chinese hamster ovary cell line, the results were inconclusive. In 2 mammalian cell assays (human lymphocytes and L5178Y mouse lymphoma cells *in vitro*), positive responses for mutagenicity and chromosomal damage occurred, but only at concentrations at least 400 times the acyclovir plasma levels achieved in man.

Acyclovir has not been shown to impair fertility or reproduction in mice (450 mg/kg day, p.o.) or in rats (25 mg/kg day, s.c.). At 50 mg/kg day s.c. in the rat, there was a statistically significant increase in post-implantation loss, but no concomitant decrease in litter size. In female rabbits treated subcutaneously with acyclovir subsequent to mating, there was a statistically significant decrease in implantation efficiency but no concomitant decrease in litter size at a dose of 50 mg/kg day. No effect upon implantation efficiency was observed when the same dose was administered intravenously. In a rat peri- and postnatal study at 50 mg/kg day s.c., there was a statistically significant decrease in the group mean numbers of corpora lutea, total implantation sites and live fetuses in the F₁ generation. Although not statistically significant, there was also a dose related decrease in group mean numbers of live fetuses and implantation sites at 12.5 mg/kg day and 25 mg/kg day, s.c. The intravenous administration of 100 mg/kg day, a dose known to cause obstructive nephropathy in rabbits, caused a significant increase in fetal resorptions and a corresponding decrease in litter size. However, at a

maximum tolerated intravenous dose of 50 mg/kg day in rabbits, there were no drug-related reproductive effects.

Intraperitoneal doses of 320 or 80 mg/kg day acyclovir given to rats for 1 and 6 months, respectively, caused testicular atrophy. Testicular atrophy was persistent through the 4-week postdose recovery phase after 320 mg/kg day; some evidence of recovery of sperm production was evident 30 days post-dose. Intravenous doses of 100 and 200 mg/kg day acyclovir given to dogs for 31 days caused aspermatogenesis. Testicles were normal in dogs given 50 mg/kg day, i.v. for one month.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Acyclovir was not teratogenic in the mouse (450 mg/kg day, p.o.), rat (50 mg/kg day, s.c.) or rabbit (50 mg/kg day, s.c. and i.v.). There are no adequate and well-controlled studies in pregnant women. Acyclovir should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus. Although acyclovir was not teratogenic in animal studies, the drug's potential for causing chromosome breaks at high concentration should be taken into consideration in making this determination.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Zovirax is administered to a nursing woman. In nursing mothers, consideration should be given to not using acyclovir treatment or discontinuing breastfeeding.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS — Short-Term Administration:

The most frequent adverse reactions reported during clinical trials were nausea and/or vomiting in 8 of 298 patient treatments (2.7%) and headache in 2 of 298 (0.6%). Less frequent adverse reactions, each of which occurred in 1 of 298 patient treatments (0.3%), included diarrhea, dizziness, anorexia, fatigue, edema, skin rash, leg pain, inguinal adenopathy, medication taste and sore throat.

Long-Term Administration: The most frequent adverse reactions reported in studies of daily therapy for 3 to 6 months were headache in 33 of 251 patients (13.1%), diarrhea in 22 of 251 (8.8%), nausea and/or vomiting in 20 of 251 (8.0%), vertigo in 9 of 251 (3.6%), and arthralgia in 9 of 251 (3.6%). Less frequent adverse reactions, each of which occurred in less than 3% of the 251 patients (see number of patients in parentheses), included skin rash (7), insomnia (4), fatigue (7), fever (4), palpitations (1), sore throat (2), superficial thrombophlebitis (1), muscle cramps (2), paronychia (1), menstrual abnormality (4), acne (3), lymphadenopathy (2), irritability (1), accelerated hair loss (1), and depression (1).

DOSAGE AND ADMINISTRATION: Treatment of initial genital herpes: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 10 days (total 50 capsules).

Chronic suppressive therapy for recurrent disease: One 200 mg capsule 3 times daily for up to 6 months. Some patients may require more drug, up to one 200 mg capsule 5 times daily for up to 6 months.

Intermittent Therapy: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 5 days (total 25 capsules). Therapy should be initiated at the earliest sign or symptom (prodrome) of recurrence.

Patients With Acute or Chronic Renal Impairment: One 200 mg capsule every 12 hours is recommended for patients with creatinine clearance ≤ 10 ml/min/1.73 m².

HOW SUPPLIED: Zovirax Capsules (blue, opaque) containing 200 mg acyclovir and printed with "Wellcome ZOVIRAX 200". Bottles of 100 (NDC-0081-0991-55) and unit dose pack of 100 (NDC-0081-0991-56).

Store at 15°-30°C (59°-86°F) and protect from light.

*In controlled studies, recurrences were totally prevented for 4 to 6 months in up to 75% of patients.

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DATELINE

Commission Reconsiders Hospital Board Ruling

Jackson, MS - The Mississippi Ethics Commission has taken under advisement a request by the Mississippi State Medical Association that the Commission reverse its recent ruling that a physician cannot serve on the hospital governing board of any hospital where he or she has staff privileges. The Commission is expected to act on the request at its meeting this month.

Health Manpower Shortage Areas Are Identified

Jackson, MS - A recent survey by the State Department of Health indicates that 43 of the state's 82 counties qualify as primary care health manpower shortage areas under federal guidelines. Criteria applied include the physician/population ratio, infant mortality rate and poverty level. Shortage areas are rated on a scale of 01 to 04, and seven counties received a ranking of 01.

HCFA Outlines New Medicare Requirements

Washington, DC - HCFA has finalized carrier instructions for two new Medicare requirements: (1) giving patients written notice when elective surgery procedures will cost \$500 or more and assignment will not be accepted and (2) making refunds to patients when unassigned services are determined to be "medically unnecessary." Physicians should receive the rules in a few weeks.

Health Programs May Face Cuts This Month

Washington, DC - At press time, Congress was facing a November 20 deadline to agree on a way to reduce by \$23 billion the budget deficit. If Congress fails, automatic reductions will occur November 21 under Gramm-Rudman revisions. Payments to hospitals, physicians and patients would be reduced by 2.3% across the board. Spending for other health programs would also be cut.

Tort Reform Shows Results

Sacramento, CA - A California survey of medical professional liability verdicts and settlements in that state during 1986 shows that total indemnity generated by cases exceeding \$50,000 decreased by 12.5%. The decrease in overall indemnity occurred, the study concludes, because of tort reform legislation which, among other things, places limits on non-economic damages.

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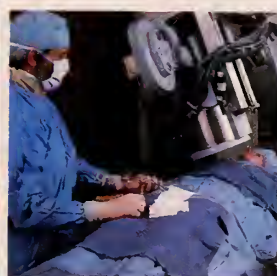
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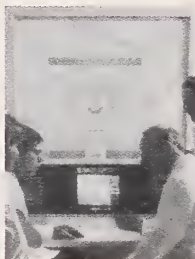
This new Center represents a nearly \$5 million investment that houses our General Electric Signa MRI System and Varian Clinac[®] 1800 linear accelerator, as well as Hinds General's centralized

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ORIGINAL PAPERS

Orthopaedic Management of Myelomeningocele: Specific Orthopaedic Procedures

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Jackson, Mississippi

THE PREVIOUS ARTICLE in this series addressed general considerations in the orthopaedic management of patients with myelomeningocele. This section gives more detail of specific orthopaedic interventions in the care of the hip, foot and spine. The management of these problems is relatively new and continues to evolve.

The Hip in Myelomeningocele

Hip dysplasia in myelomeningocele is common (33-50%).¹ The maximum incidence occurs in patients with the greatest muscle imbalance (L-3, L-4 functional level). Imbalance between the flexor-adductor group and the extensor-abductor group is responsible for this dysplasia. Currently, the treatment of hip dysplasia in myelomeningocele is controversial. The controversy centers on the value of maintaining reduction of the hip.

From the Department of Orthopaedics, University Medical Center (Doctors Fisher and Kendig); the Department of Physical Therapy, University Medical Center (Ms. Cooper); and the Mississippi Children's Rehabilitation Center (Dr. Graves). Dr. Purvis is engaged in the private practice of orthopaedics in Jackson, MS.

This is the sixth in a series of articles on current concepts in the care and habilitation of the child with myelomeningocele.

Based on the experience with polio and congenital dislocation of the hip, orthopaedic surgeons in the 1950s and the 1960s were very aggressive and treated all hip subluxation and dislocation in myelomeningocele no matter what the neurologic level.^{2,3} Treatment was complex, often requiring several major operations. The goal of this surgery was two-fold: to correct bony deformity and to restore muscle balance about the hip. This is the principle on which the treatment of any paralytic deformity is based.

Muscle balance was typically attempted by transfer of the iliopsoas to the greater trochanter such as in procedures described by Mustard⁴ and by Sharard.³ These procedures were designed to weaken the hip flexors and strengthen the hip abductors.

Bony procedures were directed toward both the proximal femur and/or the acetabulum and were often used in older patients because of chronic de-

formity. The femoral procedure usually performed was a varus derotation osteotomy to correct coxa valga and excessive femoral anteversion. Acetabular procedures were directed towards correction of the dysplastic acetabulum. These included in younger patients (less than age 7), the Pemberton acetabuloplasty and in older patients the Chiari osteotomy or a shelf procedure.^{2, 5}

As more experience was obtained with hip stabilization and as patients were followed for several years postoperatively, recurrence rates of hip instability of up to 40 to 60% were noted. The worst results were in the upper lumbar and thoracic level patients. Poor or no abductor function despite the psoas transfer was almost universally noted. In addition, there was a high associated complication rate including hip stiffness, avascular necrosis, fractures secondary to immobilization and pressure sores.^{2, 6}

Serious questions arose regarding the functional value of a stable hip in these patients.⁷⁻¹⁰ The value of hip stability has been very difficult to prove since there are so many other variables in determining a patient's functional level.¹¹ Hip stability may help prevent the development of contractures (particularly flexion). In unilateral cases, it may help limb length discrepancy and the subsequent brace wear problems that result. The question of long term degenerative arthritis of the hip in these patients has not been addressed, but has not been a problem in the follow up to date.

Though the subject is still controversial, a current indication for treatment of the dysplastic hip is in those myelomeningocele patients expected to become community ambulators in adulthood. These will generally be the low lumbar level patients with strong quadriceps who have the potential for ambulation with below knee orthotics. Higher level patients may become community ambulators, but in spite of treatment methods the chances of maintaining hip stability are much less. In addition, perhaps greater consideration should be given to treatment of the unilaterally dislocated hip, for the reasons mentioned above.

Treatment today has evolved based on past experience. It is still based on the principle of correction of deformity followed by muscle balancing. Each hip is different and therefore treatment must be individualized.

The earlier treatment is begun, the less bony deformity will be present, such that early on (less than 12 months), muscle balancing may be all that is necessary. The use of psoas recession, that is transfer of the psoas tendon to the anterior hip capsule, has been successful alone in some cases. As the

child becomes older, more extensive muscle balancing procedures may be necessary such as: transfer of the iliopsoas to greater trochanter (Sharrard);³ adductor release or transfer to the ischium;¹³ external oblique transfer to the greater trochanter;¹⁴ or combination of these procedures. The previously popular Sharrard procedure is now less popular due to the weakness of hip flexion it causes. In addition to these transfers, capsulorrhaphy of the hip joint (tightening up the generally lax hip capsule) is recognized as an important contribution to obtaining hip stability.

Bony procedures are often necessary when the child is older than age 2 years. The most common, done on the femoral side, is a varus derotation osteotomy. On the acetabular side the Pemberton osteotomy, shelf procedure, and Chiari osteotomy are still popular.^{1, 5} The Salter osteotomy is less popular because it decreases posterior coverage which is often already deficient in these patients.

Patients with thoracic and high lumbar function may often develop flexion adduction or flexion external rotation contractures. If the contractures are greater than 30 degrees, bracing may be difficult and anterior soft tissue releases may be required rather than stabilization procedures. These releases consist of division of the sartorius, tensor fascialata, psoas, adductors and anterior hip capsule as necessary.

In summary, the treatment of the myelomeningocele hip is controversial. Though not well defined, the indications for hip stabilization have in the last ten years become more narrow based on the experiences of the past. The dislocated hip, especially if unilateral, in patients who have the potential for community ambulation probably should be treated. This treatment should be started as early as possible and be as comprehensive as required so as not to extend the treatment of these hips throughout childhood.

The Foot in Myelomeningocele

Foot deformity in myelomeningocele patients is the most common orthopaedic problem with an incidence of 70 to 90 %.¹ Foot deformity may result from a combination of paralytic or spastic muscle imbalance and/or intrauterine molding. The goal of treatment is to produce a supple plantigrade foot. This is particularly important in these patients because of the relative insensitivity of the plantar aspect of the foot. Uncorrected deformities may lead to ulceration, osteomyelitis and finally amputation. The plantigrade foot allows the calcaneus and first and fifth metatarsal heads to bear weight simulta-

neously. Even in the non-ambulatory patient, a relatively plantigrade foot is important so that protective shoes can be worn.

To simplify the wide variety of foot deformities seen in myelomeningocele, two groups will be considered: the equinovarus and the calcaneal valgus deformities. In the equinovarus deformities, the foot deviates toward the midline and weight is borne on the distal, lateral aspect of the foot. In calcaneal valgus deformities the foot is deviated away from the midline and weight is borne on the posterior medial aspect of the foot. A good correlation between the type of foot deformity and the neurologic level does not exist.¹ Perhaps this is because of involuntary and spastic muscle forces that are frequently present.

Castings and splinting will often improve the foot deformities early in life and should be carried out during the first two to three months. However, due to the persistent muscle imbalance and the teratologic nature of many of these deformities, a surgical solution is most often required.

The surgical treatment of these foot deformities, as in the hip, involves correction of the deformity followed by muscle balancing. In general, correction of foot deformity is done relatively early at 4 to 12 months of age. This usually involves soft tissue surgery with the release of ligaments, tendons and muscle origins. Bone surgery is sometimes necessary in older patients (greater than age 3 to 4 years) who have incompletely corrected or recurrent deformity. Muscle balancing involves the transfer of tendons which are under voluntary control and the resection of tendons which are spastic or involuntary.

Equinovarus is the most common deformity (25-36%).¹ The treatment should be directed toward complete correction of the deformity with the initial surgery. These are generally severely contracted feet with total paralysis of the foot. There is a great tendency toward recurrence when there has not been complete correction of the bony relationships and prolonged postoperative bracing. Tendons should be resected and not just lengthened. Recurrent and residual deformity can be managed by calcaneal osteotomy, decancellation of the talus or talectomy. Talectomy is a salvage procedure and is generally only done when all else fails.¹

Calcaneus deformity is very common in myelomeningocele with an incidence of approximately 30%.¹ It is often seen in the L-4 and L-5 neurologic level patient who has activity of the anterior tibialis and toe extensors and absence of the plantar flexors. It is also seen in patients with higher level lesions

with involuntary function of the same muscles. Generally these deformities are not very severe at birth and can be managed with orthotics for approximately three to five years. These deformities will, however, be progressive secondary to muscle imbalance. In those patients with voluntary motor function, excision of the toe extensors and transfer of the anterior tibialis through the interosseous membrane to the calcaneus is currently popular. This procedure may be effective in creating balance about the foot, though long term bracing is still required for walking. In those feet with involuntary motor function, all the extensor tendons are segmentally excised along with, in some cases, the anterior joint capsule. Sometimes associated with these deformities is a valgus deformity of the ankle. This probably occurs due to paralysis of the soleus muscle and relative shortening of the fibula compared to the tibia. Early on, tenodesis of the Achilles tendon to the fibula may help to control this problem. Later an osteotomy of the distal tibia may be necessary.¹

Paralytic convex pes valgus (vertical talus) occurs in 10% or less of patients.¹ This deformity is characterized by an equinus hind foot and a calcaneus valgus forefoot with dorsal dislocation of the talonavicular joint and/or the calcaneal cuboid joint. The etiology is apparently an imbalance between the posterior tibialis, and the everters, extensors of the foot. Surgical correction is directed towards reduction of the talonavicular joint, posterior release of the hindfoot, and transfer of the anterior tibialis tendon to the neck of the talus. Some have suggested transfer of the peroneus longus to the insertion of the posterior tibialis tendon. In patients older than 2 or 3 years, the subtalar joint should be arthrodesed extra-articularly.^{1,5}

In summary, correction of the foot deformity is extremely valuable to the ambulatory myelomeningocele patient. Treatment instituted early and aggressively is most efficient and in the long term reduces the medical problems of the child.

The Spine in Myelomeningocele

Spinal deformity in myelomeningocele can be divided into two types: scoliosis and kyphosis. Spinal deformity is very common with an overall incidence of about 60 %.¹

Scoliosis is the most common deformity and is seen in two forms: congenital and developmental. Congenital deformity does not refer to the spina bifida deformity, but to the malformation of vertebral segments along any part of the spine. These are similar in configuration and management to the

congenital deformity in the neurologically normal patient. Congenital curves do not respond well to bracing and if progressive may best be managed by early, local posterior fusion. Anomalies most likely to progress include a unilateral bar, a fully segmented hemivertebrae, and a posterior lateral corner vertebrae. In later, more severe deformities, both anterior and posterior fusion with or without instrumentation may be required.¹⁵

Developmental scoliosis is the most common type of scoliosis in the myelomeningocele patient. The incidence is a direct function of the level of paralysis. In one study, the incidence was 100% in T-12 and higher levels, 90% in L-1 levels, 80% at L-2 level, 70% at L-3, level 60% at L-4 level, 75% at L-5 level, and 5% at the sacral level.¹² The causes of the scoliosis include paralysis and a loss of stability related to the abnormal posterior elements. The natural history is one of slow progression. Any rapid progression needs to be evaluated for potentially reversible causes of neurologic progression such as hydromyelia, spinal cord tethering and diastematomyelia. Untreated scoliosis in these patients can eventually lead to pelvic obliquity, sitting imbalance and poorly distributed ischial weight-bearing resulting in decubitus ulcers.^{5, 12, 1} Treatment of the scoliosis in patients who are for the most part wheelchair bound can lead to well balanced, stable spines allowing maximum upper extremity function while sitting.

There is very little data on the efficacy of spinal bracing in patients with myelomeningocele. However, bracing may slow the progression of spinal deformity allowing the development of trunk or sitting height prior to surgical treatment. These orthoses also appear to improve trunk stability and balance and allow better function of the upper extremities in these children.

Surgical treatment is, if possible, delayed until after the age of 11 years. The lack of posterior elements, the severity of the curve, and pelvic obliquity often make posterior fusion alone unsuccessful in accomplishing the goal of a stable, balanced spine. The pseudoarthrosis rate of posterior fusion alone has been reported to be as high as 67%.¹

Staged anterior, then posterior fusion one to three weeks apart is probably the standard treatment currently.^{16, 1, 5} Fusion to the sacrum is necessary to accomplish correction of the pelvic obliquity. Many instrumentation systems have been used to gain correction. Prior to the advent of posterior segmental systems (sublaminar, spinous process, pedicle fixation, Cotrel-Dubousset hooks and rods); anterior Dwyer instrumentation and posterior Harrington in-

strumentation were standard.^{5, 1} Up to one year of casting and bracing postoperatively was required with these instrumentation systems. Now, improvement in fixation with the posterior segmental systems has allowed abandonment of anterior instrumentation in most cases and has also made the use of postoperative bracing unnecessary. Anterior surgery now consists of disk excision and vertebral body fusion to increase the degree of correction and the fusion rate.

Both anterior and posterior surgery are major operations involving considerable blood loss and operative time. Complications are frequent but not insurmountable. Hyperalimentation and attention to preoperative nutrition may reduce the complication rate associated with such a long surgical treatment course. Stabilization and correction of these spinal deformities is probably one of the most valuable forms of treatment we have to offer these patients, and generally the satisfaction rate is high.

Lumbar kyphosis is the most severe and perhaps the most disabling deformity in the myelomeningocele patient. This deformity is present at birth and is associated with thoracic and high lumbar lesions in as many as one-third of the patients.

There is little or no bony or muscular stability posteriorly in these spines, hence this deformity is relentlessly progressive. It leads to an extremely disfiguring lumbar gibbus. Ulceration of the skin over the gibbus may preclude sitting and lying. Kyphotic deformity may result in the rib cage resting on the thighs requiring the upper extremities to keep the trunk upright. Trunk height is severely diminished with compromise of abdominal and thoracic volume. Urinary diversion may be compromised by this deformity.

Bracing is ineffective at controlling this deformity and the current surgical treatment is not ideal. Many surgical solutions have been proposed over the past thirty years. Currently, the most popular treatment is to resect the spinal cord with the apical and cephalad horizontal vertebra (usually two to three vertebra). Stabilization of the spine is then accomplished by a wide variety of fixation systems: K-wires, cerclage wires, Harrington rods, segmental systems and anterior plates.¹

Complete correction of this deformity with the lack of regression postoperatively has been difficult to achieve. However, most patients are generally much improved from their preoperative status. Correction of this deformity is generally performed at age 2 or 3 years; however, surgical correction may be necessary at birth if the bony deformity prevents skin closure.¹⁷

In summary, while there continues to be controversy in some areas of surgical intervention, orthopaedic surgery plays a role in the treatment of children with myelomeningocele. We must keep in mind that disabled patients rate walking last in the importance of their disabilities. Communication, activities of daily living and mobility are all rated higher.¹⁸ The orthopaedic management must be individualized based on the many patient and family variables of the myelomeningocele patient. ★★

Dr. Kendig: 2500 North State Street (39216)

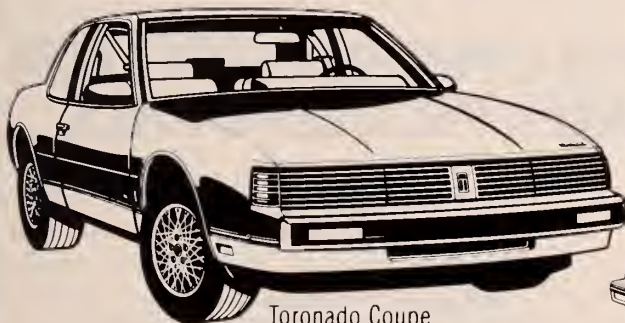
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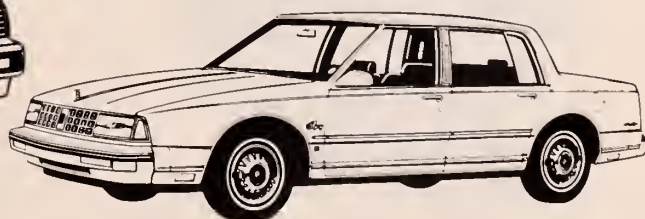
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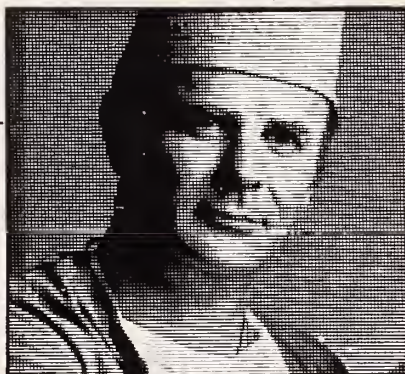
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Maternal Mortality in Mississippi: 1981-1986

KENNETH R. GRIFFIS, M.D.
WILLIAM B. WIENER, M.D.
JOHN C. MORRISON, M.D.*
Jackson, Mississippi

FOR THE LAST three decades a committee has been in place, established by the Mississippi State Medical Association (MSMA), to continually conduct research and education as it concerns maternal mortality cases occurring within the state. This study has emphasized education directed at improved maternal care and has received the support of the medical profession in our state. The Committee on Maternal and Child Care has recently completed its study data for the calendar years 1981-1986.

The maternal mortality rate for Mississippi parturients (maternal deaths per 100,000 livebirths) was 90.2 from 1956-1965, 42.4 from 1966-1975, and 11.8 from 1976-1986. The maternal mortality rate in the United States was 35.5, 19.0, and 9.3 for the same three-decade periods respectively (see Table I). We are pleased to report for the last six years a continuing low maternal mortality rate for Mississippi residents.

There are many aspects of care for the pregnant women and her fetus/neonate that contribute to the good standing of our state when compared to the national average. First of all, it is paramount to continue offering early and effective prenatal care to every pregnant patient.¹ Regionalization of health care services is also of critical importance so we can continue to insure that each parturient will obtain the level of care needed while conserving our state's meager resources in this area.² By doing so we can also integrate our ambulatory care with the hospital care for delivery and treatment for the high-

TABLE I
MATERNAL MORTALITY*
1957-1986

<i>Review Period</i>	<i>National Rate</i>	<i>Mississippi Rate</i>
1957-1966	35.5	90.2
1967-1976	19.0	42.4
1977-1986	9.3	11.8

*Number of maternal deaths/100,000 livebirths

risk parturient when needed. Also, by working together with physicians in other specialties such as family practice, internal medicine, anesthesia and pediatrics as well as with other health care professionals such as nurses, nutritionists, and social workers we will be able to preserve our state's maternal mortality rate at or below the national average. This goal is admirable given the fact that this state is among the leaders in neonatal/infant mortality and the highest in the nation in percentage of socioeconomically-disadvantaged patients in the childbearing age.

Death certificates from the Mississippi State Board of Health indicate that there were 30 maternal deaths in Mississippi from 1981-1986. The number of livebirths to Mississippi residents during this period of time averaged 44,529 livebirths per year. Techniques of obtaining and reviewing information on maternal deaths have not changed appreciably during the 30 years of study by this committee. The questionnaire type of inquiry has been exclusively employed. No investigations of hospital or office records in the local area nor interviews of hospital providers have been conducted. Therefore, complete anonymity is guaranteed. The data sheet used

* Chairman, Committee on Maternal and Child Care.
Committee Members — Thomas L. Purvis, Jr., M.D., Natchez; Edwin M. Meek, Jr., M.D., Greenwood; K. Ramsay O'Neal, M.D., Hattiesburg; Wendell H. Stockton, M.D., Amory; W. W. Walley, M.D., Waynesboro; William B. Wiener, M.D., Jackson.

was developed by the committee and has undergone only minor changes since its inception.

One of the data sheets together with a letter from the chairman of this committee is sent to the physician or other providers who attended the patient during pregnancy. He/she is asked to complete and return the data sheet and add any pertinent information as to the clinical course of the patient in a supplemental note. In addition, autopsies are encouraged in every case and copies of same are requested to be sent to the committee by the attending provider. If the physician does not reply, follow-up letters are sent at appropriate intervals. In some cases, personal attempts are made by members of the committee, the State Board of Health, officers of the Association, or local providers to obtain this information. Letters requesting additional information have occasionally been sent to responding physicians by the committee if it is deemed likely that he/she could provide further critical information that might be of value.

Following the receipt of the data sheet, autopsy report if present, and the supplemental note, all identifying marks are removed by MSMA so that anonymity is preserved. A copy of the information is then sent to a member of the committee for review prior to the next meeting of the group. At the meeting of the committee the case is summarized by the member who has studied and evaluated it according to the criteria set out by the American Medical Association's "Guide for Maternal Death Studies."³ The evaluations are discussed by the committee and agreed to or voted on if there is a division of opinion.

TABLE II
STUDY MATERIAL
1981-1986

	<i>Number</i>	<i>Percent</i>
Total cases	30	—
Replies received	30	100
Data usable	28	93

TABLE III
ADEQUACY OF DATA

<i>Category</i>	<i>Number</i>	<i>Percent</i>
5	12	40
4	11	37
3	5	17
2	1	3
1	1	3

The findings are then furnished to the attending physician, but are not divulged otherwise.

The committee studied 30 maternal deaths occurring since the last report in 1980. This covered a six-year period between 1981 and 1986. All replies to the committee inquiries were evaluated as to their usability (see Table II) and the useful replies are then classified according to the adequacy of data furnished (see Table III). The highest rating (5) occurs when the questionnaire for the committee study is completely filled out, a relevant explanatory note is attached and an autopsy report is included. If an autopsy is not obtained but the other two criteria are fulfilled a rating of 4 is given. If the data sheet is filled out but the explanatory note is not present, then a 3 rating is assigned. If a reply is received and the data sheet is partially filled out a 2 is assigned and if a reply is received but no other data is available a 1 rating is given. Obviously cases rated 1 or 2 are very difficult to evaluate because of gaps in the data received. In these cases, personal follow-up from one of the committee members through the MSMA is often helpful in obtaining verbal information. In addition, assistance from agencies such as the State Department of Health and the particular hospitals through the Hospital Association have been invaluable in some of the difficult cases.

Following the American Medical Association "Guide for Maternal Death Studies," the committee classifies maternal deaths as resulting from either direct obstetric causes, indirect obstetric deaths or undetermined (see Table IV). Direct obstetric deaths are defined by the Guide as those in which the cause of death is due to a condition that is directly related to pregnancy such as hemorrhage, toxemia, infection and vascular disease or anesthesia. Indirect obstetric deaths are those resulting from a disease process that was present before or developed during pregnancy but that was obviously not aggravated by the effects of pregnancy. Classification of maternal deaths studied by the committee during the years 1981-1986 are shown in Table V. The deaths from hemorrhage and infection have been reduced as have those from anesthesia. This probably reflects better referral patterns, more aggressive use of blood products and better utilization of anesthesia services. The deaths from toxemia and vascular accidents have not decreased even though regionalization and referral patterns seem to be working well within the state. This probably reflects the protean nature of these two disorders and deaths of these types may not be able to be reduced any further.

The direct obstetric deaths have been subclassi-

TABLE IV
CAUSES OF DEATH

<i>Category</i>	<i>Number</i>	<i>Percent</i>
Direct	16	53
Indirect	11	37
Undetermined	3	10
Total	30	100

TABLE V
CAUSES OF DIRECT OBSTETRIC DEATH

<i>Category</i>	<i>Number</i>	<i>Percent</i>
Hemorrhage	2	13
Toxemia	7	44
Infection	2	12
Vascular accident	5	31
Anesthesia	0	0
Total	16	100

fied as shown in Table VI into avoidable and unavoidable. Following the AMA guide to determination, a death is judged to be avoidable if, in the ideal, the physician possesses all the knowledge currently available relating to the factors involved in the death; and by experience he has reached a high level of technical ability and if he/she had available to them all of the facilities present in a well-organized and properly equipped hospital. Because of the austerity of these criteria it is then desirable to determine which avoidable factors were involved in the death and this data is shown on Table VII. It is obvious from this data that many of the deaths under professional factors involved late referral to secondary and tertiary centers. Professional provider education should reduce the frequency of this category in some of the cases. Secondly, it is obvious that patient responsibility factors such as late entry into the prenatal care system are involved. Finally, as a part of the professional component, it is obvious that some of these cases involved lack

TABLE VI
AVOIDABILITY

<i>Category</i>	<i>Number</i>	<i>Percent</i>
Avoidable	13	43
Unavoidable	14	47
Undetermined	3	10
Total	30	100

TABLE VII
AVOIDABLE FACTORS

	<i>Number</i>	<i>Percent</i>
Professional Factors	4	32
Hospital Factors	2	15
Patient Factors	5	38
Undetermined	2	15
Total	30	100

of facilities at the delivering hospital and the patient being too ill to transfer are involved. These factors may not be able to be impacted upon in the future.


The committee again wishes to acknowledge and commend the medical profession's support of this project in our state. Such support is the cornerstone of the success of the committee. The committee also wants to thank Mr. Charles Mathews and Mrs. Lora Lane for staff support for our work as none of this would be possible without their commitment. ★★★

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Radiological Seminar CCXLVII: Imaging of Carpal Navicular Fractures

BRIGHID McINTIRE, M.D.

R. BRENT HARRISON, M.D.

Jackson, Mississippi

THE MOST COMMON BONE in the wrist to fracture is the carpal navicular. Unfortunately, these fractures may be very difficult or even impossible to see on routine radiographs. A missed or delayed diagnosis of a carpal navicular fracture may result in significant complications such as avascular necrosis or delayed union.

When there is clinical suspicion of a navicular fracture, the routine radiographs should include a PA view of the wrist in neutral position, a PA view of the wrist in ulnar deviation, a lateral view, and a 45° pronation oblique.¹ The fractures of the carpal navicular are often subtle and may be seen on only one of these four views (see Figure 1).

If these radiographs are negative and there is still a high degree of suspicion for a fracture, a radionuclide bone scan should be performed 48 hours to one week following the injury. If there is a localized area of increased radiotracer activity or "hot spot" in the region of the carpal navicular, this is highly suggestive of fracture, and the patient should be treated with immobilization and follow-up radiographs in two weeks² (see Figure 2).

A "hot spot" is a result of the radiotracer localizing in areas of increased osteoblastic activity or hyperemia. This can be seen not only with a fracture, but also secondary to periosteal reaction from a subperiosteal hemorrhage or even ligamentous injury. In either case, immobilization would be appropriate. If there is no increased area of activity on the bone scan performed 48 hours to one week following injury, it can be concluded no fracture is present.²

The proximal carpal navicular receives blood supply from the dorsal ridge, and the remainder of the

navicular receives its blood supply from volar and superficial palmar branches of the radial artery. Because of this dual blood supply, the location and direction of the fracture line have a bearing on the prognosis and treatment. A fracture to the proximal one-third of the navicular has the greatest incidence of ischemic necrosis and delayed union. Fractures to the distal one-third have the best prognosis with the least incidence of ischemic necrosis.

The most common complication of fractures of the carpal navicular is delayed union which is failure of bony union within three months after immobilization. Many of these fractures, particularly in young males, require six to twelve months to heal completely.

The other major complication of navicular fractures is post-traumatic avascular necrosis. Risk factors for avascular necrosis include unrecognized injury, inadequate immobilization, and insufficient treatment time. This complication is identified radiographically as increased density involving the avascular fragment of the fracture. This may progress to fragmentation, bony collapse, and secondary degenerative arthritis (see Figure 3). Delayed union or nonunion may also accompany avascular necrosis. The carpal navicular has the second highest incidence of all bones for posttraumatic avascular necrosis. This is a result of the dual blood supply previously described.

Occasionally, the proximal fragment will revascularize slowly over one to two years.

Posttraumatic changes secondary to fractures of the navicular are seen radiographically as cyst formations, eburnation, pseudoarthritis, and degenerative change.

Summary

The most common bone to fracture in the wrist is the carpal navicular. Unfortunately carpal navicular fractures may be difficult to evaluate radi-

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, University Medical Center,
Jackson, MS.



Figure 1. This fracture of the carpal navicular is only seen on the oblique view of the wrist in 45° ulnar deviation.



Figure 2. On the plain radiograph, no fractures are seen. However, on the radionuclide study, there is a localized area of increased radiotracer activity in the region of the carpal navicular. These findings are suggestive of an occult carpal navicular fracture.



Figure 3. Avascular necrosis (sclerosis) of the proximal carpal navicular following a fracture. Acute carpal navicular fracture on left subsequent avascular necrosis (sclerosis) of proximal navicular following fracture on right.

ographically, and a delay or missed diagnosis may result in complications such as delayed union or avascular necrosis. When a carpal navicular fracture is suspected clinically and not seen on routine radiographs, a bone scan may be very helpful in identifying the fracture.

Radionuclide bone scans performed more than 48 hours after trauma can often be very helpful in identifying occult fracture of the navicular. If there is a "hot spot" on the bone scan in the area of the carpal navicular, this should be assumed to be a fracture; and the patient be treated with immobilization and follow-up radiographs in two weeks. If there is no localized area of increased activity, it can be assumed no fracture is present. ★★★

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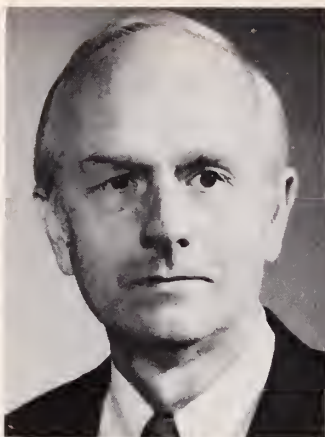
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The President Speaking

About the Auxiliary

W. LAMAR WEEMS, M.D.
Jackson, Mississippi

Peggy Herrington, President, MSMA Auxiliary, joined the Board of Trustees of MSMA for its summer meeting August 15, 1987. Although the event didn't create much of a stir, one trustee did rise to the occasion by commenting that her attendance improved the overall appearance of the Board (a remark which may be either taken to indicate that chivalry isn't dead or that sexism is still alive, depending upon your point of view). With or without fanfare, her participation was, in fact, noteworthy because it was the first time that the Auxiliary has been officially invited to take part in the full agenda of the Board. Typical of the leaders of the Auxiliary these days, Peggy is a knowledgeable and interested lady and she made valuable contributions to our meeting. Out of the experience, she will undoubtedly have a better understanding of the many ways that the Auxiliary can promote the programs of MSMA and vice versa. Symbolically, by extending the invitation to her, the Board recognized the growing importance of the Auxiliary in medical affairs. We should always, from now on, include a representative of the Auxiliary in meetings of the Board and perhaps other official meetings such as MMPAC Board, Council on Public Information, Council on Medical Service, and Council on Legislation.

The current agenda of MSMA is loaded with issues that the members of the Auxiliary can appropriately address. Health education in the public schools, indigent health care, tort reform, and political elections head a long list of projects which the members of the Auxiliary are sharing with MSMA. The Auxiliary continues to make vital contributions to the Disabled Physicians Program and to AMA/ERF. We value past contributions and solicit help in the future.

These are changing and stressful times for the Auxiliary as well as for MSMA. Auxiliaries have their own set of organizational concerns and projects. For example, with the increasing numbers of female graduates from medical schools, male members will need to be assimilated in a meaningful way into Auxiliary affairs. MSMA Auxiliary representatives continue to achieve recognition for their leadership at the national level. One member of the Auxiliary has won the Democratic primary for a seat in the Mississippi State Legislature and another is in a close race with a

(Continued on page 316)

EDITORIALS

JOURNAL OF THE
MISSISSIPPI STATE
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Pocket Change

One of the things that I detest the most (besides paper work) is giving depositions in injury cases. Like everything else, though, you have to take the bad with the good. Just as you do, I do my best to serve my patients and their best interests in our judicial system.

Depositions

In one week recently I had three depositions in my office. Customarily the lawyers for each side and the court reporter all gather at the specified time. Coming down the hall we meet each other all around. Everyone finds a seat and we get started. At that point, usually, one side or the other excuses themselves and asks for a "moment of my time, in private." We go across the hall; close the door; and they proceed to get a "feeling" of what my answers to some of their most pertinent questions will be. (They should have done this weeks ahead, but usually don't.) Then we go back and sit down in the office. About that time the other lawyers excuse themselves and ask for "a moment of my time, in private." We go across the hall; close the door; and they proceed to try to find out what I told the other lawyers. We then go back to the office and all sit down and get after it . . . like a dog chewing on an old, friendly bone.

One-Up-Man-Ship

Mostly it's a true game of one-up-man-ship between opposing lawyers. First off, the lawyers are always very considerate of my time and are very ready to admit to the other side any of whatever shortcomings I may have. Secondly, it is always interesting to see each side jockeying for position so they can hammer home that great, frequent, famous comment "Let the record show that I object to that comment (or that form of questioning)." It

would be a *lot* more fun to be on one side or the other instead of being caught in the middle. . . . And I enjoy those "off the record" conversations on football, other cases, and where the opposing lawyers will eat lunch — together.

Who Pays?

One thing I did notice during the week that I gave those three depositions was that no one offered to pay for my time or services (either pre-arranged, at the time of the deposition, or afterward). . . . That is, until I gave them a statement as they left. Having a bill for an all day court session still on my books for several years for which I had been promised pay repeatedly by the patient's attorney (a former governor), I don't let them get away without a statement and a commitment to pay.

This time, the first case's paying lawyer looked kinda' funny at me when I handed him the statement. The next case's paying lawyer looked at my bill and said, "Is that all it is?" I really got the message when I handed the lawyer my statement for the third deposition. He reached in his pocket and said, "Oh, if *that's* all it is, I can pay you out of my pocket."

Legal Eagle

What the heck, I've always charged \$100.00 for depositions. I got to thinking that perhaps things had changed in these 30+ years, so I called MSMA's Legal Eagle (who laughed also). He told me that in giving depositions you should neither make a profit nor lose money. In fact he sent me a very good booklet on medico-legal ethics . . . he'll be glad to send you one too if you'll ask him.

I don't feel sorry for lawyers, I'm just real proud to be a physician.

JOSEPH E. JOHNSTON, M.D.
Associate Editor

THE PRESIDENT SPEAKING

(Continued from page 314)

good chance to win. On a darker side, high divorce rates represent a societal problem with unique ramifications when it comes to medical marriages. Medical spouses share in the devastating emotional and financial impact of a rising tide of lawsuits against physicians. These are merely a few examples of the many challenges which engage the Auxiliary.

Lately, pressures to contain health care costs have become intense, coming at once from government, from private industry and from the marketplace. Physicians are beginning to feel these pressures. For example, a recent study by Arthur Anderson and Company on the "Future of Healthcare" strongly supports the conclusion that the average income of both primary care practitioners and specialists will decrease significantly by 1995 and that the physician surplus will be severe. In addition, increasing numbers of medical school graduates are burdened with indebtedness because of the high costs of medical education. In spite of best efforts, organized medicine may be helpless to resist many of the changes which are occurring. Physicians will have to adapt as individuals to the new economic climate. If future conditions require adjustment to a standard of living which is below expectations, adaptation will be particularly stressful to medical family units.

Most of us recognize that a great deal of satisfaction is to be found by physicians themselves in the practice of medicine aside from the remuneration they receive. In that regard, I have permission to quote Dr. Bernard J. Dreiling, who has been voted to receive the Clinical Professor of the Year Award by the senior classes of the University of Mississippi School of Medicine for six out of the last thirteen years, an unprecedented achievement. Needless to say, the students rate him very highly as a doctor and as a person. In accepting his award this year Dr. Dreiling said, "Joy in what we are doing has always been a pervasive quality of medicine that has passed from one generation to the next. It had little to do with money. Medicine is a calling, not a business, a vocation to be treasured. I can think of no more exciting, challenging and fulfilling life's work." Dr. Dreiling is a full-time employee of the V. A. Hospital. Safe to say that, regardless of economic conditions, there will be ample opportunity in the future to experience joy in the practice of medicine for all physicians to whom it is a "vocation to be treasured." Correspondingly, there will be a compelling need for members of the Auxiliary to support their physician

spouses in that role if the joy of medicine as defined by Dr. Dreiling is to be realized.

I recently ran across a quotation of John Stuart Mill, a great English philosopher, which seems pertinent to this line of thinking. In his concept of "the good life," Mill concluded that happiness is the rightful goal of every individual, but that the reason why so many fail to find it is that they spend too much of their energy hunting it. "Those only are happy who have their minds fixed on some other objective — on the happiness of others — on the improvement of mankind — even on some art or similar pursuit — followed not as a means to an end, but as an ideal end in itself. Aiming at something else worthwhile, they will find happiness along the way."

In pursuit of their own professional careers and avocations, by involvement in community affairs, by making homes and nurturing children, and through support of the Auxiliary, Auxilians in numbers manifest an appreciation of Mill's philosophy.

Review A Book

Members of MSMA interested in reviewing any of these volumes should address requests to Editor, JOURNAL MSMA. After submitting a review for publication, you may keep the book for your personal library.

Neurology: Problems in Primary Care. James L. Bernat, M.D. and Frederick M. Vincent, M.D. Oradell, New Jersey: Medical Economics Books, 1987.

Neuroanatomy: An Atlas of Structures, Sections and Systems.

Duane E. Haines, Ph.D. Baltimore, Maryland: Urban & Schwarzenberg, 1987. \$22.50.

MEDICAL ORGANIZATION

AIDS Task Force Submits Legislative Proposals

The Mississippi State Board of Health will decide at its December meeting whether to support legislative recommendations made October 14 by the statewide AIDS task force.

If recommendations are adopted by the Board, there would be no effort to seek legislated mandatory HIV testing of any group.

The proposals do include, however, mandatory reporting of infected individuals, along with amendments to the "privileged communication" statute. Such amendments would include provisions to: expand the Board's authority to obtain information to protect the public health; allow physicians to report persons with any communicable disease who do not comply with protective measures or notification of others exposed; provide for a misdemeanor penalty and establish civil liability for anyone violating confidentiality provisions of the statute; and to allow disclosure of necessary information to other providers of health care to whom the patient is transferred or referred.

In connection with provisions for mandatory reporting, the Department of Health included in its budget proposals \$2.1 million for hiring staff to do counseling and follow-up contact of infected persons.

The task force recommends seeking new legislation to prohibit discrimination against HIV-infected individuals in employment, education, housing, and access to health care.

The task force also recommends legislation imposing a felony penalty with a maximum five-year prison sentence for the violation of a duly issued order of the local health officer when it involves a life-threatening disease.

While recommendations were made concerning other areas, such as Medicaid coverage and insurance eligibility, the task force emphasized the need for continued and expanded educational efforts for curbing the AIDS epidemic. The task force urged massive public education efforts, including dissemination of information in public schools.

Insurance Commission Grants 45% Increase to St. Paul

The Mississippi Insurance Commission last month granted a 45% rate increase to St. Paul Fire and Marine Insurance Company, after reconsideration of its earlier decision to allow the company to raise rates by 29%.

Following the 2-1 vote, Insurance Commissioner George Dale announced that no more increases for medical liability insurance will be approved for at least one year.

The MSMA had recommended the 45% increase, as the lesser of two bad choices, when St. Paul stated it would withdraw coverage from some 1300 Mississippi physicians.

The association also told the Commission that the professional liability situation in the state had reached a point of crisis, and urged the Commission to support tort reform legislation to prevent further higher costs and decreased availability of health care for all Mississippians.

A recent casualty of soaring liability insurance rates was the University of Mississippi's poison control center in Oxford. Dr. Wallace Guess, dean of the school of pharmacy, announced that the center closed early in October after receiving notice that its annual liability insurance premium would increase from \$600 to \$6,000. Health care professionals calling the Oxford poison control center will be referred by taped message to the UMC poison control center in Jackson or Mid-South Poison Center at Memphis.

MSMA Headquarters Dedicated This Month

Dedication ceremonies will be held Friday, November 20 for the new MSMA headquarters building on Riverside Drive. The program will begin at 3:00 p.m. and will be followed by a tour of the building. An open house will be held Saturday morning, November 21, preceding the Ole Miss State football game.

All MSMA members are invited to participate.

UMC Announces Faculty Appointments

Three have been named in faculty appointments and promotions in the School of Medicine and in centerwide appointments at the University of Mississippi Medical Center for the current academic session.

Dr. Normal C. Nelson, UMC vice chancellor for health affairs, announced the appointments following approval by the Board of Trustees of State Institutions of Higher Learning.

In the School of Medicine, Dr. Jon D. Magee was appointed instructor in psychiatry and human behavior (psychology). Dr. Rae Hanson, assistant professor of pediatrics (neurology) and assistant professor of neurology, was named director of the Children's Epilepsy Program.

Centerwide, Dr. Mona Trempe Norcum was promoted to assistant professor of biochemistry.

Dr. Magee earned the associate degree in 1977 at State University of New York Agricultural and Technical College at Canton, the B.S. in 1978 at

State University of New York College at Oswego, the M.A. in 1985 and the Ph.D. in 1986 at the University of Southern Mississippi. He was assistant director of the Sleep Research Laboratory at USM from 1985-1987 and has been assistant director of the Sleep Disorders Center at the Medical Center since August, 1987.

Dr. Hanson earned the B.S. in 1973 and the M.D. in 1976 at the University of Arizona. He did his internship in 1977 at the William Beaumont Army Medical Center in El Paso, Texas, and completed a residency in 1980, and a fellowship in 1983, at Walter Reed Army Medical Center. From 1977-1979, he served as a battalion flight surgeon in the U.S. Army Medical Corps, and as chief of the child neurology service and assistant chief of neurology service at William Beaumont Army Medical Center since 1983.

Dr. Norcum, a 1976 graduate of the University of Vermont, earned the Ph.D. in 1982 at the University of California at Los Angeles and did her postdoctoral research fellowship at the Molecular Biology Institute at UCLA. She has been a research assistant in biochemistry at the University of Vermont School of Medicine, and was a staff research associate at the UCLA medical school from 1976-1979. She had been a senior research associate in biochemistry since 1984, until her appointment to the School of Medicine faculty as instructor in biochemistry in 1986.



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UMC Resident Awarded AAFP Research Prize

Dr. David Hall, chief resident in the Department of Family Medicine at the University of Mississippi Medical Center, received first prize for original research by a family practice resident at the scientific assembly of the American Academy of Family Physicians in San Francisco, California.

The paper by the Natchez native, "Fatigue: A New Approach to an Old Problem," was selected for top honors by the AAFP scientific program committee.

Dr. Hall, the son of Mr. and Mrs. Bobby G. Hall, graduated with high honors from South Natchez High School and earned the B.S. cum laude from Millsaps College. He is a UMC School of Medicine alumnus.

SKF Contributes to Medical Center's James C. Hardy Chair in Surgery

Smith Kline and French Laboratories, an international pharmaceutical house, has contributed \$25,000 to the James D. Hardy Chair in Surgery at the University of Mississippi Medical Center — the largest single gift to date.

"More than \$400,000 has been pledged toward the chair," said Dr. William A. Billups, Jr., of Meridian, who heads the group of former residents of Dr. Hardy who are raising funds for the endowment.

Dr. Billups said formal presentation of the SKF gift for the chair was made to Dr. Normal C. Nelson, UMC vice chancellor for health affairs, by SKF representatives Jack Tyner of Meridian and Linda Bagley.

More than 150 physicians have completed residency training in the UMC Department of Surgery, and many have stayed in the state to practice. This group, along with other former students of Dr. Hardy, colleagues and friends have joined efforts to establish the chair to honor their mentor, Dr. Billups said. Dr. Hardy has been chairman of the Department of Surgery at the Medical Center since the institution opened in 1955.

Dr. Hardy is an internationally known surgeon-scientist, educator and author. His pioneer efforts in organ transplantation moved Dr. Hardy and his team from the laboratory to the operating room in 1964 to perform the world's first heart transplant in man — a decision which continues to benefit thousands of transplant recipients around the globe. The team also did the world's first human lung transplant.

Dr. Hardy is a past president of the International Society of Surgery, the American College of Surgeons, the American Surgical Association, the Society for Surgery of the Alimentary Tract, the Society of University Surgeons, the Society of Surgical Chairmen and the Southern Surgical Association. He also is author or editor of 21 books, many of which are standard textbooks in medical schools the world over. He edited the Rhoads *Textbook of Surgery* for many years and is now chief editor of Hardy's *Textbook of Surgery*.

For more information about the Hardy Chair, contact the University of Mississippi Medical Center Department of Public Relations and Information Services, 2500 North State Street, Jackson, Mississippi 39216-4505; or call (601) 984-1100.

Junior League to Raise Funds for Children's Cancer Clinic

The Junior League of Jackson began its public campaign in September to raise funds to build a Children's Cancer Clinic at the University of Mississippi Medical Center. The proposed \$2 million structure will adjoin the UMC Children's Hospital.

League president Pat Grenfell said the League became aware of the critical need for the clinic through the organization's volunteer work with the UMC Children's Cancer Program.

"A professional feasibility study the League commissioned in 1986 found that a fundraising campaign was practical and that a \$2 million goal was both reasonable and attainable," she said. "We began calling on prospective major donors throughout the state last fall and already have \$1.2 million committed to the project in cash and pledges." The goal of the public campaign is \$800,000.

"A separate clinic for the Children's Cancer Program is one of our most pressing needs," said Dr. Norman C. Nelson, vice chancellor for health affairs, "and we are deeply grateful that the League has chosen to raise the funds for this structure. With

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CHILDREN'S CANCER CLINIC/Continued

their dedication and leadership, I feel very confident that it will become a reality."

The Medical Center offers the only comprehensive treatment center for children with cancer in the state. The UMC program is a part of a national network of 40 pediatric cancer centers which participate in clinical and laboratory research in pediatric cancer under the auspices of the National Cancer Institute.

The UMC program uses a multispecialty physician team and supporting nursing, laboratory and social work personnel to provide all the components of contemporary therapy and supportive care for children with cancer. At present, the young cancer patients have to share clinic space with other sick children.

Grenfell said the proposed clinic would also consolidate various patient support resources which are now scattered throughout the Medical Center complex.

"This campaign is an historic event for Junior Leagues across the United States" said Nancy Studdard of Jackson, chairman of the League's fundraising committee. "Traditionally, we raise money through projects like Mistletoe Marketplace and Southern Sideboards — and then allocate the money raised to our various community projects, but we

wanted to do more for the Children's Cancer Program. We wanted to find the funding for a new clinic."

Members of the League's campaign advisory committee are Howard McMillan, chairman; Alex Allenburger, Judge Reuben Anderson, Cela Bates, Dr. Ralph Brock, Dr. A. Wallace Conerly, Al Flannes, George Gear, Tay Gillespie, Bryan Jones, Dr. Norman C. Nelson, Denise Owen, Henry Paris, Judy Parker, Dr. Paul Parker, David Sanders, Betty H. Scott, Bill Sones, Donna Sones, Suzan Thames, and Mims Wright.

120th Annual Session

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For information about AMA-ERF greeting cards for year-round use, contact a member of your local MSMA Auxiliary, or Kathy Carmichael, 106 Colonial Place, Hattiesburg, MS 39401; telephone 268-9642.

PERSONALS

W. O. BARNETT of Jackson recently conducted an education seminar for U. S. Surgical Corporation in Norwalk, Connecticut, on the subject of the continent intestinal reservoir.

JAMES MICHAEL BEASLEY has associated with the Internal Medicine Clinic of Laurel for the practice of internal medicine.

JOE HAND CAMPBELL, JR. has associated with an anesthesiology group at 2601 Mamie Street in Hattiesburg for the practice of anesthesiology.

RICHARD A. CONN of Hattiesburg is a diplomate of the American Academy of Orthopaedic Surgeons.

PHILIP CRANSTON of Jackson was named a fellow of the American College of Radiology at the college's annual meeting in San Diego.

MICHAEL H. DENYER has associated with South Mississippi Heart Institute in Hattiesburg for the practice of cardiac, thoracic and vascular surgery.

DAVID DUNIGAN has joined the medical staff at Laird Hospital in Union for the practice of radiology.

CAL DUREL of Oxford announces the association of ROBERT MANDAL for the practice of anesthesiology at 407 South 11th Street.

JAMES C. GILMORE has associated with The Cardiovascular Center, 2169 South Lamar in Oxford, for the practice of cardiac, vascular and thoracic surgery.

HARPER HELLEMS of UMC was chairman and co-director of the Mississippi Geriatric Education Center's Summer Institute on the Impact of an Aging Society on Professional School Curriculum.

JAMES HUGHES of UMC was chairman of the faculty for an American Academy of Orthopedic Surgery Summer Institute in Boston, Massachusetts.

WALTER R. JONES of Jackson was speaker at a regular meeting of the Jackson Ostomy Association.

FRANK T. MARASCALCO and HENRY A. MCCRORY of Clarksdale completed a course in gynecologic laser surgery approved by the Gynecologic Laser Society. Dr. Marascalco also completed a post-course preceptorship.

DILWORTH MEEKS announces the opening of an office in Aberdeen for the practice of ear, nose and throat medicine.

STEVE MONTGOMERY announces the opening of his office for the practice of family medicine at 183 South Main Street in Pontotoc.

WALTER C. MOSES, JR. and KENNETH L. HINES of Greenwood announce the association of JEFF MOSES for the practice of internal medicine.

ANN MYERS of Brandon announces the association of LINDA ROCKHOLD for the practice of rheumatology.

LEON PARKS announces the opening of the West Scott Surgical Clinic in Morton, for the practice of general, thoracic and vascular surgery.

CHARLES R. ROBERTSON has associated with Pediatric Clinic of Tupelo for the practice of pediatrics and adolescent medicine.

WILLIAM M. ROSS announces the opening of his office for the general practice of medicine at 2006 Robertson Drive in Corinth.

CHARLES C. SLEDGE has associated with Rush Medical Group of Newton for the practice of family medicine.

WILLIAM H. SOREY announces the opening of his office for the practice of adolescent/young adult medicine at 379 Medical Drive in Jackson.

ROBERT T. VAN UDEN, JR. announces the opening of his office for the practice of orthopedic surgery at 302 Highland Boulevard in Natchez.

POSTGRADUATE CALENDAR

PEDIATRIC ANNUAL MEETING
Nov. 21-22
University Medical Center

PERINATAL POSTGRADUATE COURSE
Dec. 3-4

SPECIAL NURSES SESSION
Dec. 2
Ramada Renaissance Hotel, Jackson

For more information or a program brochure, contact the University of Mississippi Medical Center Division of Continuing Health Professional Education, 2500 North State Street, Jackson, Mississippi 39216-4505; or call (601) 984-1300.

DEATHS

CONN, FRANCIS R., Hattiesburg. Born Memphis, TN., 1922. M.D., Tulane University School of Medicine, New Orleans, 1946; interned and orthopaedic residency, Charity Hospital, New Orleans, 1946-47 and 1949-52; died June 30, 1987, age 65.

GODBEY, MARIAN W., Aberdeen. Born Scio, NY, 1908. M.D., Boston University School of Medicine, Boston, MA, 1932; interned Jersey City Medical Center; residency training in tuberculosis treatment, Hudson County TB Hospital and Mt. Morris, New York TB Hospital; died August 29, 1987, age 78.

MERRIAM, L. B., Waynesboro. Born Chattanooga, TN, 1898. M.D., University of Tennessee College of Medicine, Memphis, 1926; interned Memphis General Hospital and Grady Hospital, Atlanta, GA; died August 3, 1987, age 89.

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MINKLER, F.C., Pascagoula. Born New Brunswick, NJ, 1917; M.D., Harvard Medical School, Boston, MA, 1943; interned, Presbyterian Hospital, Chicago; died August 26, 1987, age 80.

MOORE, JOE KEITH, Oxford. Born Meridian, MS, June 12, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and orthopedic residency, University Medical Center, Jackson, 1977-84; died August 31, 1987, age 33.

NEW MEMBERS

BUTLER, GLORIA J., Port Gibson. Born Forest, MS, Aug. 4, 1956; M.D., Howard University School of Medicine, Washington, DC, 1982; interned and family practice residency, University of Alabama, Tuscaloosa, 1982-85; elected by Claiborne County Medical Society.

SAND, MARK EVAN, Keesler. Born Montour Falls, NY, Aug. 27, 1951; M.D., University of Rochester School of Medicine, Rochester, NY, 1978; interned, general surgery residency, cardiothoracic surgery residency, and fellowship in congenital cardiac surgery, University of Alabama, Birmingham, 1978-86; elected by Coast Counties Medical Society.

GRIFFITH, JAMES L., Jackson. Born Columbia, MA, May 16, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1976; interned, one year, Vanderbilt University Hospital, Nashville; neurology residency, University Medical Center, Jackson, 1977-80; psychiatry residency, Massachusetts General Hospital and Harvard Medical School, Boston, 1980-83; elected by Central Medical Society.



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Medico-Legal Brief

M.D. and Hospital Liable For Performing Vasectomy Without Patient's Consent

A physician's failure to obtain a patient's consent to a vasectomy during performance of prostate surgery supported a finding of negligence on the part of the physician and the hospital, a Connecticut appellate court ruled.

The 67-year-old patient signed a form consenting to a prostatectomy and cystoscopy and for any additional procedures deemed advisable by the physician. After surgery, the patient discovered that the physician had performed a vasectomy as well as the proposed prostatectomy. In addition, he experienced impotency resulting from the prostatectomy. The patient filed an action against the physician alleging negligence on the part of both the physician and the hospital in failing to obtain any consent for the vasectomy and for failing to obtain an informed consent for the prostatectomy as he was not told that impotency was one of its risks.

A jury found that the physician was acting as the agent of the hospital when he failed to obtain the patient's consent to the vasectomy and when he failed to obtain an informed consent to the prostatectomy. A jury entered a verdict in favor of the patient for \$195,000 and in favor of his wife for \$1 in damages for loss of consortium.

Affirming the decision, the appellate court said that the evidence was sufficient to establish that the customary standard of care of physicians in the same practice as that of the physician was to obtain the patient's consent prior to performing any operation. Moreover, the instructions to the physician contained in the consent form specifically required him to include such operations as a vasectomy on the form prior to obtaining the patient's signature. The failure of the physician, while acting as an agent of the hospital, to fulfill his duty supported the jury's finding of negligence on the part of both the physician and the hospital. — *Shenefield v. Greenwich Hospital Association*, 522 A.2d 829 (Conn.App.Ct., March 24, 1987)



BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that the simultaneous administration of CARAFATE with tetracycline, phenytoin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. The clinical significance of these animal studies is yet to be defined.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No evidence of drug-related tumorigenicity was found in chronic oral toxicity studies of 24 months' duration conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies have not been conducted.

Pregnancy: Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients, adverse effects were reported in 121 (4.7%). Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

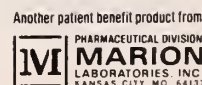
HOW SUPPLIED

CARAFATE (sucralfate) 1-gm pink tablets are supplied in bottles of 100 and in Unit Dose Identification Paks of 100. The tablets are embossed with MARION/1712.

Issued 3/84

References:

1. Grossman MI. *Scand J Gastroenterol* 58 (suppl 15):7-16, 1980.
2. Marks IN, in Hellemans J, Vantrappen G (eds): *Gastrointestinal Tract Disorders in the Elderly*. Edinburgh, Churchill Livingstone, 70-81, 1984.
3. Krentz K, Jablonowski H, in Hellemans J, Vantrappen G (eds): *Gastrointestinal Tract Disorders in the Elderly*. Edinburgh, Churchill Livingstone, 62-69, 1984.



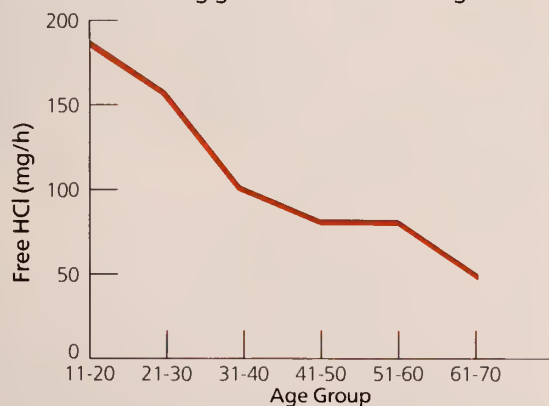
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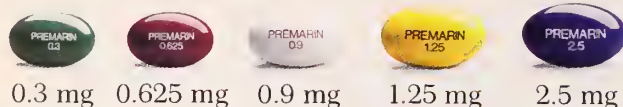
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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS.)

PREMARIN® Brand of conjugated estrogens tablets, USP

PREMARIN® Brand of conjugated estrogens Vaginal Cream, in a nonliquetizing base

1. ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA. Three independent, case-controlled studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case-controlled studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semi-annual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration. It therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equi-estrogenic doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY. The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing, in later life, a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects. One case-controlled study estimated a 4.7-fold increased risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mares' urine. It contains estrone, equilin, and 17 α -dihydroequilin, together with smaller amounts of 17 α -estradiol, equilin, and 17 α -dihydroequilin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP) Moderate-to-severe vasomotor symptoms associated with the menopause (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) Osteoporosis (abnormally low bone mass). Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae.

PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens (See PRECAUTIONS). The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (see Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

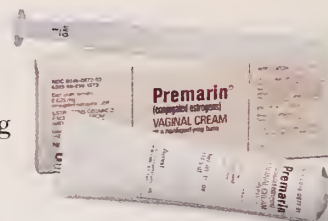
WARNINGS: Estrogens have been reported to increase the risk of endometrial carcinoma (see Boxed Warning). However, a recent large, case-controlled study indicated no increase in risk of breast cancer in postmenopausal women. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism, and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

For atrophic vaginitis

PREMARIN® (conjugated estrogens)

Vaginal
Cream
0.625 mg/g



Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention, such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Pre-existing uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not yet complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

- Increased sulfobromophthalen retention
- Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability
- Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T_4 by column, or T_4 by radioimmunoassay. Free T_3 resin uptake is decreased, reflecting the elevated TBG. Free T_4 concentration is unaltered.
- Impaired glucose tolerance
- Decreased pregnandiol excretion
- Reduced response to meprobamate test
- Reduced serum iodate concentration
- Increased serum triglyceride and phospholipid concentration

As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

Long-term, continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. However, in a recent, large case-controlled study of postmenopausal women there was no increase in risk of breast cancer with use of conjugated estrogens.

ADVERSE REACTIONS: The following have been reported with estrogen therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome, amenorrhea during and after treatment, increase in size of uterine fibromyoma, vaginal candidiasis, change in cervical erosion and in degree of cervical secretion, cystitis-like syndrome, tenderness, enlargement, secretion (of breasts), nausea, vomiting, abdominal cramps, bloating, cholestatic jaundice, chloasma or melasma which may persist when drug is discontinued, erythema multiforme, erythema nodosum, hemorrhagic eruption, loss of scalp hair, hirsutism, steepening of corneal curvature, intolerance to contact lenses, headache, migraine, dizziness, mental depression, chorea, increase or decrease in weight, reduced carbohydrate tolerance, aggravation of porphyria, edema, changes in libido.

ACUTE OVERDOSSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. *Given cyclically for short-term use only.* For treatment of moderate-to-severe vasomotor symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 mg to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. *Given cyclically.* Osteoporosis. Female castration. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off). Female castration—1.25 mg daily cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control.

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three- to six-month intervals.

Usual dosage range 2 g to 4 g daily intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

References:

1. Lindsay R, Hart OM, Clark DM. The minimum effective dose of estrogen for prevention of postmenopausal bone loss. *Obstet Gynecol* 1984;63:759-763. 2. Studd JWW, Thom MH, Paterson MEL, et al. The prevention and treatment of endometrial pathology in postmenopausal women receiving exogenous estrogens, in Pasetti N, Paoletti R, Ambrosi JL (eds) *The Menopause and Postmenopause*. Lancaster, England: MTP Press Ltd, 1980, chap 13.

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DIRECTOR: New, \$2.5 million cancer center needs a hematologist/medical oncologist to direct regional program and practice. Supported by 200+ bed hospital w/100K drawing area, located in southern Louisiana. Local outdoor recreational activities and only 45 minutes to Gulf coast. Competitive compensation package. Contact Jim Davis, TYLER & CO., 9040 Roswell Road, Atlanta, Ga 30350. Call (404) 641-5411.

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PHYSICIANS NEEDED

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2230; Jackson, 922-6811; extensions 2275, 2276, 2249 or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain the Social Security Disability program, the medical documentation requirements, and how the disability determination process works. Any group interested in this presentation should also contact the Medical Relations Office.

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References: 1. Flomenbaum W. *Am J Cardiol* 57(2):38A-43A, 1986. 2. Broter DC, Fox WR, Chennovosin P. *J Clin Pharmacol* 21:599-603, 1981. 3. Iber FL, Baum RA. *J Clin Pharmacol* 21:697-700, 1981. 4. Henning R, Lundvall O. *Eur J Clin Pharmacol* 6:224-227, 1973. 5. Physicians' Desk Reference, 40th ed. Oradell, NJ, Medical Economics Company, 1986, pp 939, 1480. 6. Pentikoinen PJ, et al. *Br J Clin Pharmacol* 4:39-44, 1977. 7. Losix, A Review. Somerville, NJ, Hoechst-Roussel Pharmaceuticals, Inc., 1980.

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WARNING: Bumex (bumetanide/Roche) is a potent diuretic which, if given in excessive amounts, can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dosage schedule have to be adjusted to the individual patient's needs. (See under **DOSAGE AND ADMINISTRATION** in complete product information.)

INDICATIONS AND USAGE: Edema associated with congestive heart failure, hepatic and renal disease, including the nephrotic syndrome.

Almost equal diuretic response occurs after oral and parenteral administration of Bumex. If impaired gastrointestinal absorption is suspected or oral administration is not practical, Bumex should be given by the intramuscular or intravenous route.

Successful treatment with Bumex following instances of allergic reactions to furosemide suggests a lack of cross-sensitivity.

CONTRAINDICATIONS: Anuria. Hypersensitivity and in patients in hepatic coma or in states of severe electrolyte depletion. Although Bumex can be used to induce diuresis in renal insufficiency, any marked increase in blood urea nitrogen or creatinine, or the development of oliguria during therapy of patients with progressive renal disease, is an indication for discontinuation of treatment.

WARNINGS: Dose should be adjusted to patient's needs. Excessive doses or too frequent administration can lead to profound water loss, electrolyte depletion, dehydration, reduction in blood volume and circulatory collapse with the possibility of vascular thrombosis and embolism, particularly in elderly patients.

Prevention of hypokalemia requires particular attention in patients receiving digitalis and diuretics for congestive heart failure, hepatic cirrhosis and ascites, states of aldosterone excess with normal renal function, potassium-losing nephropathy, certain diarrheal states, or other states where hypokalemia is thought to represent particular added risk to the patients.

In patients with hepatic cirrhosis and ascites, sudden alterations of electrolyte balance may precipitate hepatic encephalopathy and coma. Treatment in such patients is best initiated in the hospital with small doses and careful monitoring of the patient's clinical status and electrolyte balance. Supplemental potassium and/or spironolactone may prevent hypokalemia and metabolic alkalosis in these patients. In cats, dogs and guinea pigs, Bumex has been shown to produce ototoxicity. Since Bumex is about 40 to 60 times as potent as furosemide, it is anticipated that blood levels necessary to produce ototoxicity will rarely be achieved. The potential for ototoxicity increases with intravenous therapy, especially at high doses.

Patients allergic to sulfonamides may show hypersensitivity to Bumex.

PRECAUTIONS: Measure serum potassium periodically and add potassium supplements or potassium-sparing diuretics, if necessary. Periodic determinations of other electrolytes are advised in patients treated with high doses or for prolonged periods, particularly in those on low salt diets.

Hyperkalemia may occur. Reversible elevations of the BUN and creatinine may occur, especially with dehydration and in patients with renal insufficiency. Bumex may increase urinary calcium excretion. Possibility of effect on glucose metabolism exists. Periodic determinations of blood sugar should be done, particularly in patients with diabetes or suspected latent diabetes.

Patients should be observed regularly for possible occurrence of blood dyscrasias, liver damage or idiosyncratic reactions.

Especially in presence of impaired renal function, use of parenterally administered Bumex should be avoided in patients to whom aminoglycoside antibiotics are also being given, except in life-threatening conditions.

Drugs with nephrotoxic potential and bumetanide should not be administered simultaneously. Since lithium reduces renal clearance and adds a high risk of lithium toxicity, it should not be given with diuretics.

Probenecid should not be administered concurrently with Bumex.

Concurrent therapy with indomethacin not recommended.

Bumex may potentiate the effects of antihypertensive drugs; necessitating reduction in dosage.

Interaction studies in humans have shown no effect on digoxin blood levels.

Interaction studies in humans have shown Bumex to have no effect on warfarin metabolism or on plasma prothrombin activity.

Pregnancy: Bumex should be given to a pregnant woman only if the potential benefit justifies the potential risk to the fetus.

Bumetanide may be excreted in breast milk.

Pediatric Use: Safety and effectiveness below age 18 not established.

ADVERSE REACTIONS: Muscle cramps, dizziness, hypotension, headache and nausea, and encephalopathy (in patients with preexisting liver disease).

Less frequent clinical adverse reactions are weakness, impaired hearing, rash, pruritus, hives, electrocardiogram changes, abdominal pain, arthralgia, pain, musculoskeletal pain and vomiting. Other clinical adverse reactions are vertigo, chest pain, ear discomfort, fatigue, dehydration, sweating, hyperventilation, dry mouth, upset stomach, renal failure, osteitis, itching, nipple tenderness, diarrhea, premature ejaculation and difficulty maintaining erection.

Laboratory abnormalities reported are hyperkalemia, azotemia, hyperglycemia, increased serum creatinine, hypochloremia, hypokalemia, hyponatremia, and variations in CO₂ content, bicarbonate, phosphorus and calcium. Although manifestations of the pharmacologic action of Bumex, these conditions may become more pronounced by intensive therapy.

Diuresis induced by Bumex may also rarely be accompanied by changes in LDH, total serum bilirubin, serum proteins, SGOT, SGPT, alkaline phosphatase, cholesterol, creatinine clearance, deviations in hemoglobin, prothrombin time, hematocrit, platelet counts and differential counts. Increases in urinary glucose and urinary protein have also been seen.

DOSAGE AND ADMINISTRATION:

Oral Administration: The usual total daily dosage is 0.5 to 2.0 mg and in most patients is given as a single dose.

Parenteral Administration: Administer to patients (IV or IM) with GI absorption problem or who cannot take oral. The usual initial dose is 0.5 to 1 mg given over 1 to 2 minutes. If insufficient response, 0.5 second or third dose may be given at 2 to 3 hour intervals up to a maximum of 10 mg on day 1.

HOW SUPPLIED: Tablets: 0.5 mg (light green), 1 mg (yellow) and 2 mg (peach), bottles of 100 and 500. Prescription Packs of 30, Tel-E-Dose[®] cartons of 100. Imprint on tablets: 0.5 mg—ROCHE BUMEX 0.5, 1 mg—ROCHE BUMEX 1, 2 mg—ROCHE BUMEX 2.

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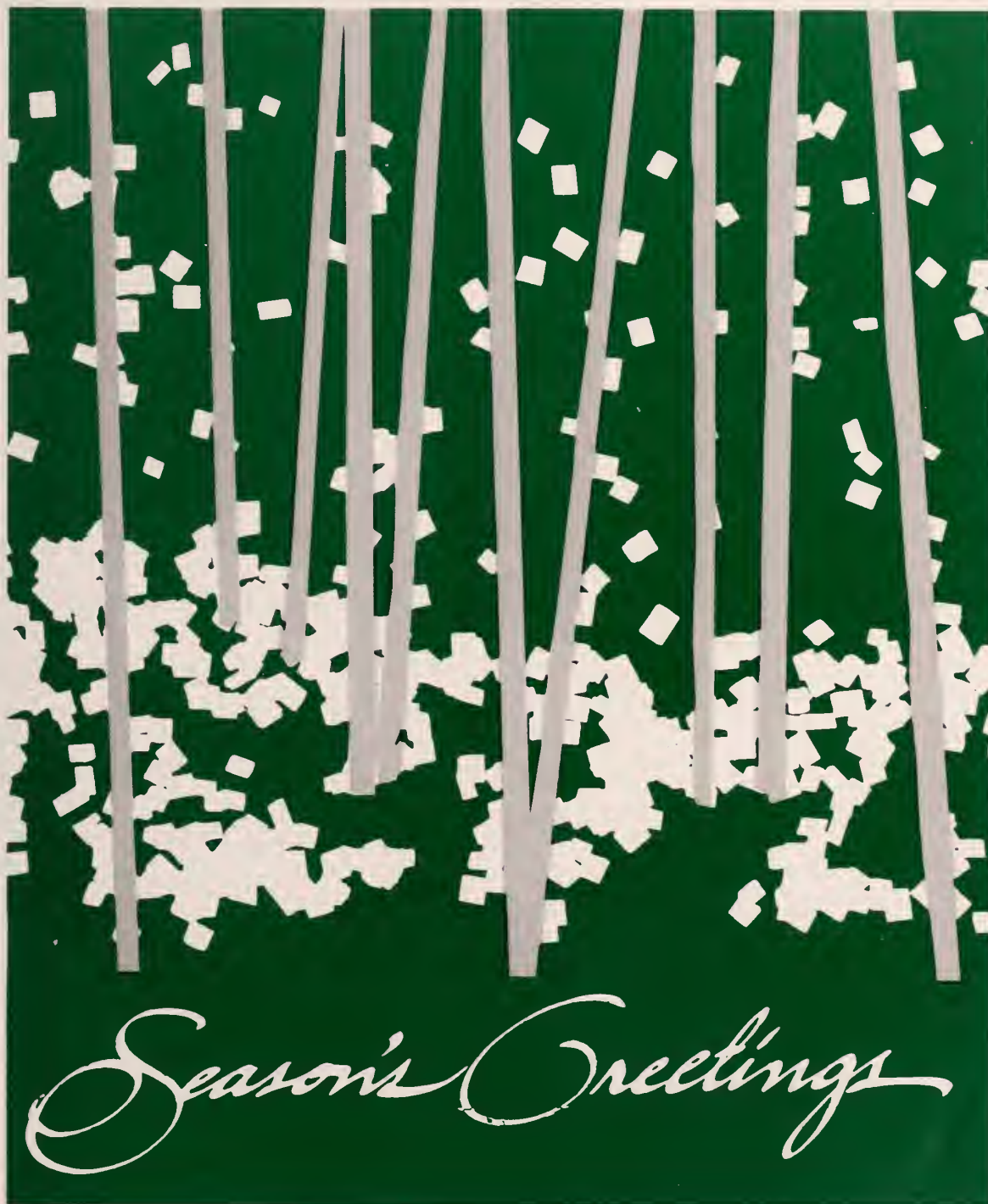
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OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

DECEMBER

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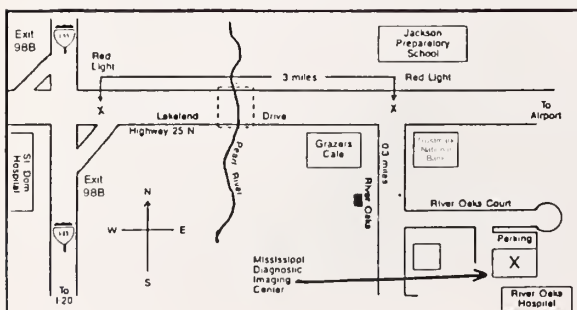
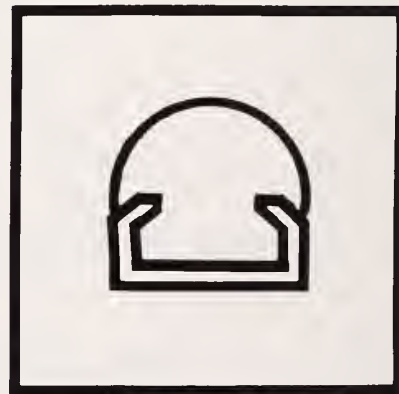


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SCIENTIFIC

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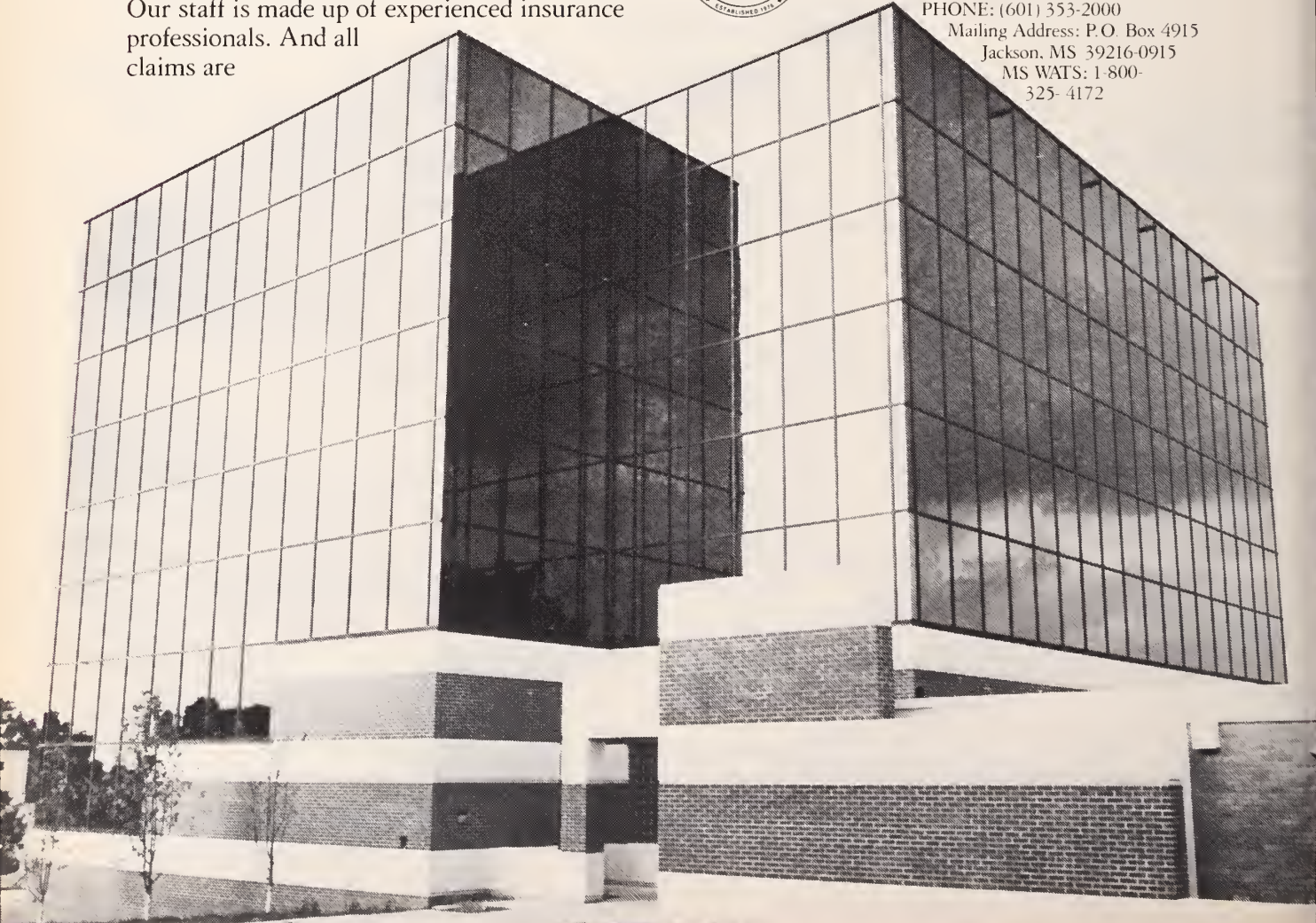
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NEWSLETTER

December 1987

Dear Doctor:

The Jefferson F. Hollingsworth, M.D., Memorial Clinical Research Award has been established by the American Heart Association in Mississippi. The late Dr. Hollingsworth, who served as president of the Mississippi Affiliate in 1985-86, encouraged participation by clinicians in cardiovascular research. The grant will be a maximum of \$5,000 per project.

Applications will be accepted from physicians in private practice or academic medicine. Deadline for applying is May 1, 1988. For more information, contact American Heart Association, Mississippi Affiliate, P. O. Box 16808, Jackson, MS 39236 (1-800-451-3744).

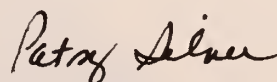
Two members of the MSMA Auxiliary were among winning candidates in the recent statewide elections. Dorothy (Mrs. Ed) Cole of Richton defeated Fred Dobbins of Leaksville and will be sworn in to the Mississippi House of Representatives in January. Barbara (Mrs. Ted) Blanton of Brandon defeated Mitch Childre of Pearl and is one of the three females elected to the Mississippi Senate.

The business and professional community is optimistic about possibilities for tort reform, following results of elections. As part of a business-professional coalition, MSMA will be supporting a twelve-point package of broad-based tort reforms in addition to a package of legislation that will apply only in actions against health care providers. The proposed legislation is regarded as consistent with Governor-elect Ray Mabus' theme of promoting economic development by creating a favorable business climate.

The Council on Scientific Assembly met November 20 to begin planning for the 120th Annual Session. Be sure to mark your calendars now, and plan to be in Biloxi, June 15-19, 1988.

From your MSMA Staff: Best Wishes for a Happy Holiday Season! May you have the richest blessings of Christmas and a wonderful new year.

Sincerely,



Patsy Silver
Managing Editor

Counsel to Authors

THE JOURNAL welcomes manuscripts which should be submitted to the Editors at 735 Riverside Drive, Jackson, MS 39216, in original and at least one duplicate copy. They must be typewritten double spaced on 8½ by 11-inch white paper. **Brief manuscripts (about 2,500 words or 8 pages) will be given preference over longer articles.**

The author is responsible for all statements made in his work, including changes made by the manuscript editor. Manuscripts are received with the understanding that they are not under simultaneous consideration by any other publication and have not been previously published. All manuscripts will be acknowledged, and while those rejected are generally returned to the author, the JOURNAL is not responsible in event of loss. Manuscripts accepted for publication become the property of the JOURNAL and are copyrighted by the association when published. They may not be published elsewhere without written release and permission from both the JOURNAL and the author.

All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list. Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

may not be made. The galley proof should be returned by the author within 48 hours from receipt, and no further changes may be made.

Illustrations consist of all material which cannot be set into type such as photographs, line drawings, graphs, charts, and tracings. Illustrations should be submitted separately from text copy. Figures and drawings should be professionally prepared with black ink on white paper. Photographs should be of high resolution, unmounted, untrimmed, glossy prints. Each must be clearly identified. No charges are made to authors for up to four illustration engravings. More are not permitted unless voted on by two editors and extra costs must be absorbed by the author.

Illustrations must be numbered and cited in the text. Legends, not exceeding 40 words and preferably shorter, must accompany each illustration, typed double spaced on separate sheets. The following information should appear on a gummed label affixed to the back of each illustration: Figure number, manuscript title, author's name, and arrow indicating top of the illustration.

In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material.

A thesis summary of 75 to 100 words must accompany each manuscript.

Reprints may be obtained at cost plus shipping charges from the association and **should be ordered prior to publication.** The JOURNAL reserves the right to decline any manuscript. Authors should avoid placing subheads in the text, and the Editors reserve the prerogative of writing and inserting subheads according to JOURNAL style. — *The Editors.*

In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*



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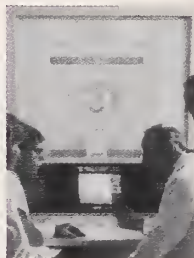
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DATELINE

Support Groups Forming
For Post-Polio Syndrome

Jackson, MS - Efforts are underway
to establish a statewide network of
support groups to provide educational

programs for persons with post-polio syndrome. Your patients may get more
information by calling: Susan Brown, Independent Living Center, 300 Capers
Avenue, Jackson, MS 39203 (961-4140) or Tammy McLaurin with Easter Seals,
P. O. Box 4958, Jackson, MS 39216 (982-7915).

Nominations Solicited
For Community Service Award

Jackson, MS - Nominations are being
solicited for MSMA's 1988 Community
Service Award, to be presented at the

120th Annual Session. The award, consisting of a plaque and \$500 donation to
a civic organization designated by the recipient, is presented for outstanding
community service by a member. Please submit nominations to the secretary of
your component society.

2nd Mississippi Conference
On Impaired Health Professionals

Jackson, MS - The second statewide
Conference on Impaired Professionals
will be held in Jackson, January 29-31,

at the Coliseum Ramada Inn. Problems of impairment cut across the spectrum
of health professionals, and the conference seeks to insure that effective help
is available for members of medical, dental, nursing, veterinary and pharmacy
professions. For information, contact Nell Rowell, 366-7483.

AIDS Impact Cuts
Across Medical Specialties

Chicago, IL - While AIDS dominates
public health and infectious disease
fields, it is presenting new

challenges to experts in areas ranging from family medicine to pathology,
according to an article in the October 23 JAMA. Family physicians will play
an increasing role in the AIDS epidemic, the authors said, since "we will be
the first and last to care for many of these patients."

JAMA: Many Common Procedures
Performed Inappropriately

Chicago, IL - Studies in the November
13 JAMA, involving a sample of elderly
Medicare patients, indicate that up to

32 percent of three common medical procedures may be performed for inappro-
priate reasons. Related editorials by John H. Dawson, M.D., a member of the
AMA Board of Trustees, and John E. Wennberg, M.D., of Dartmouth Medical School,
underscore the importance of the findings.



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Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

*** WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other anti-hypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances, postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

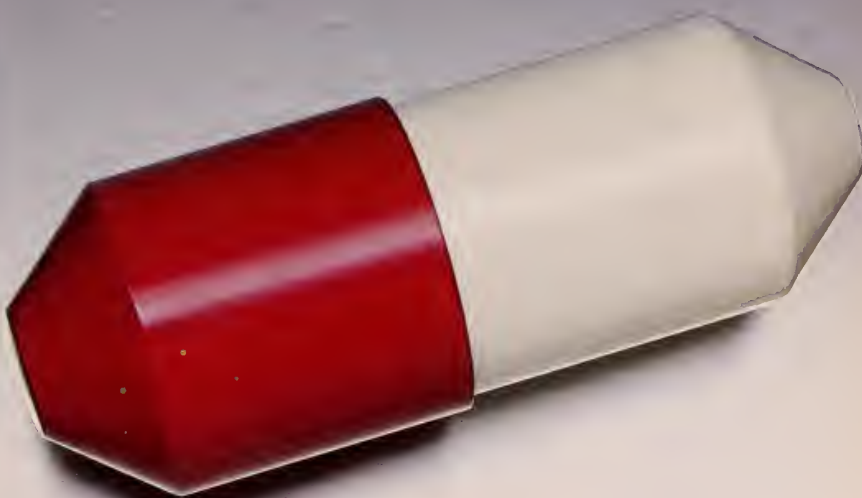
Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

BRS-DZ-L42

In Hypertension*... When You Need to Conserve K⁺

Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K⁺ and BUN should be checked periodically (see Warnings and Precautions)



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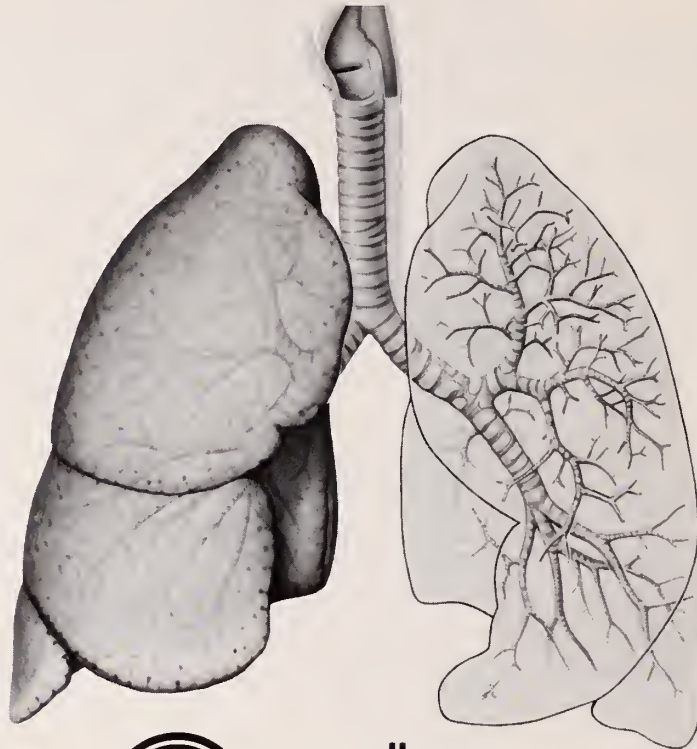
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250-mg Pulvules® t.i.d.

**offers effectiveness against
the major causes of bacterial bronchitis**

Haemophilus influenzae and *Streptococcus pneumoniae*
(ampicillin-susceptible and ampicillin-resistant)

Note: Ceclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Ceclor® (cefaclor)

Summary. Consult the package literature for prescribing information.

Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A β -hemolytic streptococci).

Contraindication:

Known allergy to cephalosporins.

Warnings:

CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients. Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] or the above skin manifestations accompanied by arthritis/arthritis and, frequently, fever): 1.5%; usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nerv-

ousness, insomnia, confusion, hypertension, dizziness, and somnolence have been reported.

- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children).
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly).

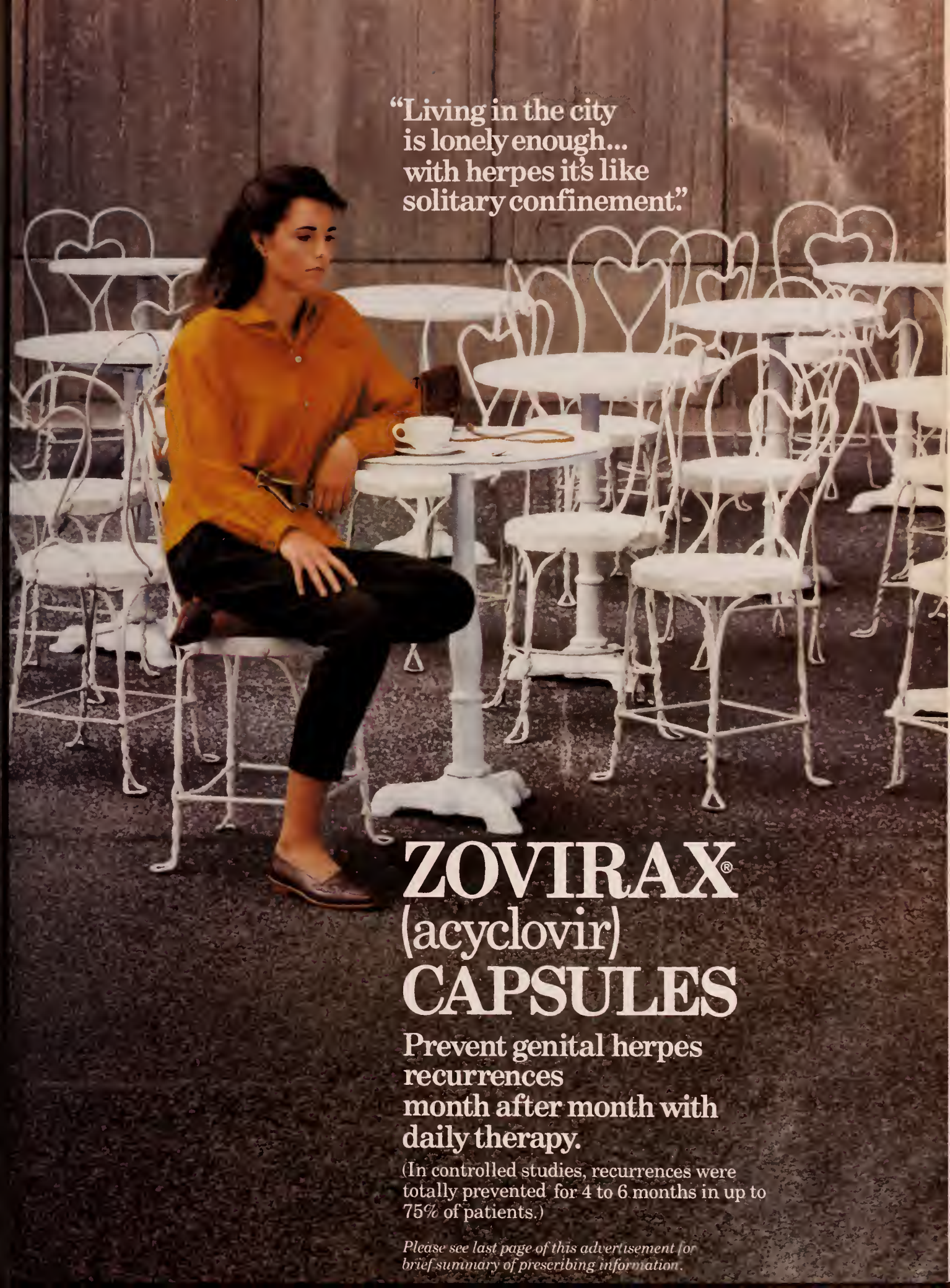
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Eli Lilly Industries, Inc.
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"Living in the city
is lonely enough...
with herpes it's like
solitary confinement."

ZOVIRAX[®] (acyclovir) CAPSULES

**Prevent genital herpes
recurrences
month after month with
daily therapy.**

(In controlled studies, recurrences were
totally prevented for 4 to 6 months in up to
75% of patients.)

*Please see last page of this advertisement for
brief summary of prescribing information.*

ZOVIRAX[®] **(acyclovir)** **CAPSULES**

Help free your patients from recurrences.

Daily therapy

Coping with genital herpes is rarely easy. For some, the worst part is the pain and discomfort of frequent attacks — month after month, year after year. For others, the emotional burden presents a more difficult problem, leading to social isolation, anxiety, and diminished self-esteem.

Prevent or reduce recurrences

Although your patients have to live with herpes, they shouldn't have to suffer. Daily therapy with ZOVIRAX CAPSULES can help free them from the cycle of recurrent genital herpes. For many, one capsule three times a day can suppress recurrences completely while on therapy.

Generally well tolerated

Daily therapy with ZOVIRAX CAPSULES is generally well tolerated. The most frequent adverse reactions reported during clinical trials were headache, diarrhea, nausea/vomiting, vertigo, and arthralgia.

The physical and emotional difficulties posed by genital herpes are unique for each patient. The frequency and severity of recurrent episodes, as well as the emotional impact of the disease, should be considered when selecting daily therapy with ZOVIRAX CAPSULES.

*Please see brief summary of
prescribing information on next page.*



Prevent recurrences month after month*

ZOVIRAX®

(acyclovir)

CAPSULES

Brief Summary

INDICATIONS AND USAGE: Zovirax Capsules are indicated for the treatment of initial episodes and the management of recurrent episodes of genital herpes in certain patients.

The severity of disease is variable depending upon the immune status of the patient, the frequency and duration of episodes, and the degree of cutaneous or systemic involvement. These factors should determine patient management, which may include symptomatic support and counseling only, or the institution of specific therapy. The physical, emotional and psycho-social difficulties posed by herpes infections as well as the degree of debilitation, particularly in immunocompromised patients, are unique for each patient, and the physician should determine therapeutic alternatives based on his or her understanding of the individual patient's needs. Thus Zovirax Capsules are not appropriate in treating all genital herpes infections. The following guidelines may be useful in weighing the benefit/risk considerations in specific disease categories:

First Episodes (primary and nonprimary infections — commonly known as initial genital herpes):

Double-blind, placebo-controlled studies have demonstrated that orally administered Zovirax significantly reduced the duration of acute infection (detection of virus in lesions by tissue culture) and lesion healing. The duration of pain and new lesion formation was decreased in some patient groups. The promptness of initiation of therapy and/or the patient's prior exposure to Herpes simplex virus may influence the degree of benefit from therapy. Patients with mild disease may derive less benefit than those with more severe episodes. In patients with extremely severe episodes, in which prostration, central nervous system involvement, urinary retention or inability to take oral medication require hospitalization and more aggressive management, therapy may be best initiated with intravenous Zovirax.

Recurrent Episodes:

Double-blind, placebo-controlled studies in patients with frequent recurrences (6 or more episodes per year) have shown that Zovirax Capsules given for 4 to 6 months prevented or reduced the frequency and/or severity of recurrences in greater than 95% of patients. Clinical recurrences were prevented in 40 to 75% of patients. Some patients experienced increased severity of the first episode following cessation of therapy; the severity of subsequent episodes and the effect on the natural history of the disease are still under study.

The safety and efficacy of orally administered acyclovir in the suppression of frequent episodes of genital herpes have been established only for up to 6 months. Chronic suppressive therapy is most appropriate when, in the judgement of the physician, the benefits of such a regimen outweigh known or potential adverse effects. In general, Zovirax Capsules should not be used for the suppression of recurrent disease in mildly affected patients. Unanswered questions concerning the human relevance of *in vitro* mutagenicity studies and reproductive toxicity studies in animals given very high doses of acyclovir for short periods (see Carcinogenesis, Mutagenesis, Impairment of Fertility) should be borne in mind when designing long-term management for individual patients. Discussion of these issues with patients will provide them the opportunity to weigh the potential for toxicity against the severity of their disease. Thus, this regimen should be considered only for appropriate patients and only for six months until the results of ongoing studies allow a more precise evaluation of the benefit/risk assessment of prolonged therapy.

Limited studies have shown that there are certain patients for whom intermittent short-term treatment of recurrent episodes is effective. This approach may be more appropriate than a suppressive regimen in patients with infrequent recurrences.

Immunocompromised patients with recurrent herpes infections can be treated with either intermittent or chronic suppressive therapy. Clinically significant resistance, although rare, is more likely to be seen with prolonged or repeated therapy in severely immunocompromised patients with active lesions.

CONTRAINDICATIONS: Zovirax Capsules are contraindicated for patients who develop hypersensitivity or intolerance to the components of the formulation.

WARNINGS: Zovirax Capsules are intended for oral ingestion only.

PRECAUTIONS: General: Zovirax has caused decreased spermatogenesis at high doses in some animals and mutagenesis in some acute studies at high concentrations of drug (see PRECAUTIONS—Carcinogenesis, Mutagenesis, Impairment of Fertility). The recommended dosage and length of treatment should not be exceeded (see DOSAGE AND ADMINISTRATION).

Exposure of Herpes simplex isolates to acyclovir *in vitro* can lead to the emergence of less sensitive viruses. The possibility of the appearance of less sensitive viruses in man must be borne in mind when treating patients. The relationship between the *in vitro* sensitivity of Herpes simplex virus to acyclovir and clinical response to therapy has yet to be established.

Because of the possibility that less sensitive virus may be selected in patients who are receiving acyclovir, all patients should be advised to take particular care to avoid potential transmission of virus if active lesions are present while they are on therapy. In severely immunocompromised patients, the physician should be aware that prolonged or repeated courses of acyclovir may result in selection of resistant viruses which may not fully respond to continued acyclovir therapy.

Drug Interactions: Co-administration of probenecid with intravenous acyclovir has been shown to increase the mean half-life and the area under the concentration-time curve. Urinary excretion and renal clearance were correspondingly reduced.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Acyclovir was tested in lifetime bioassays in rats and mice at single daily doses of 50, 150 and 450 mg/kg given by gavage. There was no statistically significant difference in the incidence of tumors between treated and control animals, nor did acyclovir shorten the latency of tumors. In 2 *in vitro* cell transformation assays, used to provide preliminary assessment of potential oncogenicity in advance of these more definitive life-time bioassays in rodents, conflicting results were obtained. Acyclovir was positive at the highest dose used in one system and the resulting morphologically transformed cells formed tumors when inoculated into immunosuppressed, syngeneic, weanling mice. Acyclovir was negative in another transformation system considered less sensitive.

In acute studies, there was an increase, not statistically significant, in the incidence of chromosomal damage at maximum tolerated parenteral doses of 100 mg/kg acyclovir in rats but not Chinese hamsters; higher doses of 500 and 1000 mg/kg were clastogenic in Chinese hamsters. In addition, no activity was found after 5 days dosing in a dominant lethal study in mice. In 6 of 11 microbial and mammalian cell assays, no evidence of mutagenicity was observed. At 3 loci in a Chinese hamster ovary cell line, the results were inconclusive. In 2 mammalian cell assays (human lymphocytes and L5178Y mouse lymphoma cells *in vitro*), positive responses for mutagenicity and chromosomal damage occurred, but only at concentrations at least 400 times the acyclovir plasma levels achieved in man.

Acyclovir has not been shown to impair fertility or reproduction in mice (450 mg/kg/day, p.o.) or in rats (25 mg/kg/day, s.c.). At 50 mg/kg/day s.c. in the rat, there was a statistically significant increase in post-implantation loss, but no concomitant decrease in litter size. In female rabbits treated subcutaneously with acyclovir subsequent to mating, there was a statistically significant decrease in implantation efficiency but no concomitant decrease in litter size at a dose of 50 mg/kg/day. No effect upon implantation efficiency was observed when the same dose was administered intravenously. In a rat peri- and postnatal study at 50 mg/kg/day s.c., there was a statistically significant decrease in the group mean numbers of corpora lutea, total implantation sites and live fetuses in the F₁ generation. Although not statistically significant, there was also a dose related decrease in group mean numbers of live fetuses and implantation sites at 12.5 mg/kg/day and 25 mg/kg/day, s.c. The intravenous administration of 100 mg/kg/day, a dose known to cause obstructive nephropathy in rabbits, caused a significant increase in fetal resorptions and a corresponding decrease in litter size. However, at a

maximum tolerated intravenous dose of 50 mg/kg/day in rabbits, there were no drug-related reproductive effects.

Intraperitoneal doses of 320 or 80 mg/kg/day acyclovir given to rats for 1 and 6 months, respectively, caused testicular atrophy. Testicular atrophy was persistent through the 4-week postdose recovery phase after 320 mg/kg/day; some evidence of recovery of sperm production was evident 30 days post-dose. Intravenous doses of 100 and 200 mg/kg/day acyclovir given to dogs for 31 days caused aspermato-genesis. Testicles were normal in dogs given 50 mg/kg/day, i.v. for one month.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Acyclovir was not teratogenic in the mouse (450 mg/kg/day, p.o.), rat (50 mg/kg/day, s.c.) or rabbit (50 mg/kg/day, s.c. and i.v.). There are no adequate and well-controlled studies in pregnant women. Acyclovir should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus. Although acyclovir was not teratogenic in animal studies, the drug's potential for causing chromosome breaks at high concentration should be taken into consideration in making this determination.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Zovirax is administered to a nursing woman. In nursing mothers, consideration should be given to not using acyclovir treatment or discontinuing breastfeeding.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS—Short-Term Administration: The most frequent adverse reactions reported during clinical trials were nausea and/or vomiting in 8 of 298 patient treatments (2.7%) and headache in 2 of 298 (0.6%). Less frequent adverse reactions, each of which occurred in 1 of 298 patient treatments (0.3%), included diarrhea, dizziness, anorexia, fatigue, edema, skin rash, leg pain, inguinal adenopathy, medication taste and sore throat.

Long-Term Administration: The most frequent adverse reactions reported in studies of daily therapy for 3 to 6 months were headache in 33 of 251 patients (13.1%), diarrhea in 22 of 251 (8.8%), nausea and/or vomiting in 20 of 251 (8.0%), vertigo in 9 of 251 (3.6%), and arthralgia in 9 of 251 (3.6%). Less frequent adverse reactions, each of which occurred in less than 3% of the 251 patients (see number of patients in parentheses), included skin rash (7), insomnia (4), fatigue (7), fever (4), palpitations (1), sore throat (2), superficial thrombophlebitis (1), muscle cramps (2), pars planitis (1), menstrual abnormality (4), acne (3), lymphadenopathy (2), irritability (1), accelerated hair loss (1), and depression (1).

DOSAGE AND ADMINISTRATION: Treatment of initial genital herpes: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 10 days (total 50 capsules).

Chronic suppressive therapy for recurrent disease: One 200 mg capsule 3 times daily for up to 6 months. Some patients may require more drug, up to one 200 mg capsule 5 times daily for up to 6 months.

Intermittent Therapy: One 200 mg capsule every 4 hours, while awake, for a total of 5 capsules daily for 5 days (total 25 capsules). Therapy should be initiated at the earliest sign or symptom (prodrome) of recurrence.

Patients With Acute or Chronic Renal Impairment: One 200 mg capsule every 12 hours is recommended for patients with creatinine clearance ≤ 10 ml/min/1.73 m².

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ORIGINAL PAPERS

Prenatal Detection of Neural Tube Defects — A Multidisciplinary Approach

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NEURAL TUBE DEFECTS (NTDs) are disorders of polygenic/multifactorial inheritance that result from failure of the neural tube to close during early embryogenesis. Each year in Mississippi approximately 75 infants or 1 to 2 per 1000 live births are affected by this form of birth defect. The two major types of NTDs are spina bifida and anencephaly. A fetus with spina bifida has an incomplete closure of the neural tube including spinal cord and surrounding structures which, in its most severe form, can

This is the sixth in a series of articles on care and habilitation of the child with myelomeningocele. Other articles and their issue of publication are: "Neurological Complications" (June); "Neurosurgical Approach" (July); "Urologic Management" (August); "General Orthopaedic Management" (September); and "Specific Orthopaedic Procedures" (November).

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cause lower limb paralysis, sensory loss, lack of bladder and bowel control, scoliosis, hydrocephalus and mental retardation. The smallest and most caudal NTD lesions such as spina bifida have the best prognosis. At the other end of the spectrum of NTDs is anencephaly, in which the cranial vault fails to form, invariably resulting in stillbirth or early neo-

natal demise. Although most NTDs are open, about 10% are closed over to some degree by a layer of skin. The vast majority of NTDs occur as isolated malformations in response to multifactorial origins.¹

Until recently, the only gravid patients who received prenatal counseling and risk assessments about possible NTD occurrence were those with a positive family history in either parent (1% risk of occurrence), existence of a NTD in either parent (3% to 5% risk of occurrence), or one or more prior affected children (2% to 6% risk of occurrence).² Importantly, however, 90% to 95% of NTDs occur in families without a positive history and are associated with high rates of perinatal mortality, morbidity, and long term development disability. One-third of infants with open spina bifida, for instance, will survive five years and 90% of the survivors will be handicapped.³

Prenatal diagnosis of many NTDs became possible following the observation that second-trimester levels of fetal alpha-fetoprotein (AFP) in maternal serum and amniotic fluid are usually elevated in association with open fetal NTDs. Routine screening of all parturients with second-trimester measurements of maternal serum AFP (MSAFP) has been advocated in order to identify 80% to 90% of those at risk. Thereafter, further testing in the form of amniocentesis and targeted ultrasound can be utilized to identify an affected fetus in order to allow the parental option of pregnancy termination or preparation for the birth of an affected infant.

Alpha-fetoprotein (AFP) is synthesized in large amounts initially by the fetal yolk sac and thereafter by the fetal gastrointestinal tract and liver.¹ Fetal serum and amniotic fluid AFP levels (AFAFP) usually peak near the end of the first trimester and decline slowly thereafter. A decline usually does not occur if a fetal malformation (often a NTD) is present that is leaking fetal blood components into the amniotic fluid or occasionally if fetal gastrointestinal malformation or malfunction is present. Alpha-fetoprotein also appears in the maternal serum (MSAFP) in much lower concentration at a fraction of fetal levels, slowly rising to a peak concentration at 28 to 32 weeks' gestation. Between the gestational ages of 15 to 20 weeks, ranges of normal and elevated levels of MSAFP and AFAFP have been determined for purposes of prenatal diagnosis. In all populations in which ranges of normal have been determined, the interpretation of MSAFP and AFAFP values is closely related to gestational age.

Increased amounts of MSAFP occur secondary to NTDs as well as a large number of fetal, placental and membrane abnormalities which are associated

with the passage of increased fetal AFP into the mother's circulation. Screening of gravidas for MSAFP levels between 16 to 18 weeks has been shown to prenatally identify 90% of anencephalic fetuses and 80% of fetuses with open spina bifida.⁴ Thus, every fetus with a NTD is not identified by MSAFP screening and conversely many elevated values are not associated with any apparent fetal or placental abnormality. In addition to NTDs, elevated AFP values occur most frequently in association with multiple pregnancy, fetal demise and a large number of congenital and chromosomal fetal abnormalities. Testing and interpretation of laboratory values therefore is not simplistic but must be done with great care and experience as well as by multi-stage testing procedures designed to optimize sensitivity and specificity. It is worthwhile to emphasize the concept that MSAFP testing is performed for *screening* purposes; maternal amniotic fluid AFP (AFAFP) testing in association with high resolution targeted ultrasound that is performed by a specially-trained sonologist are performed for *diagnostic* purposes. The use of simple office ultrasound enhances the *screening* application of MSAFP because it helps to establish gestational age, number, viability and absence of anencephaly.

Clinical Applications

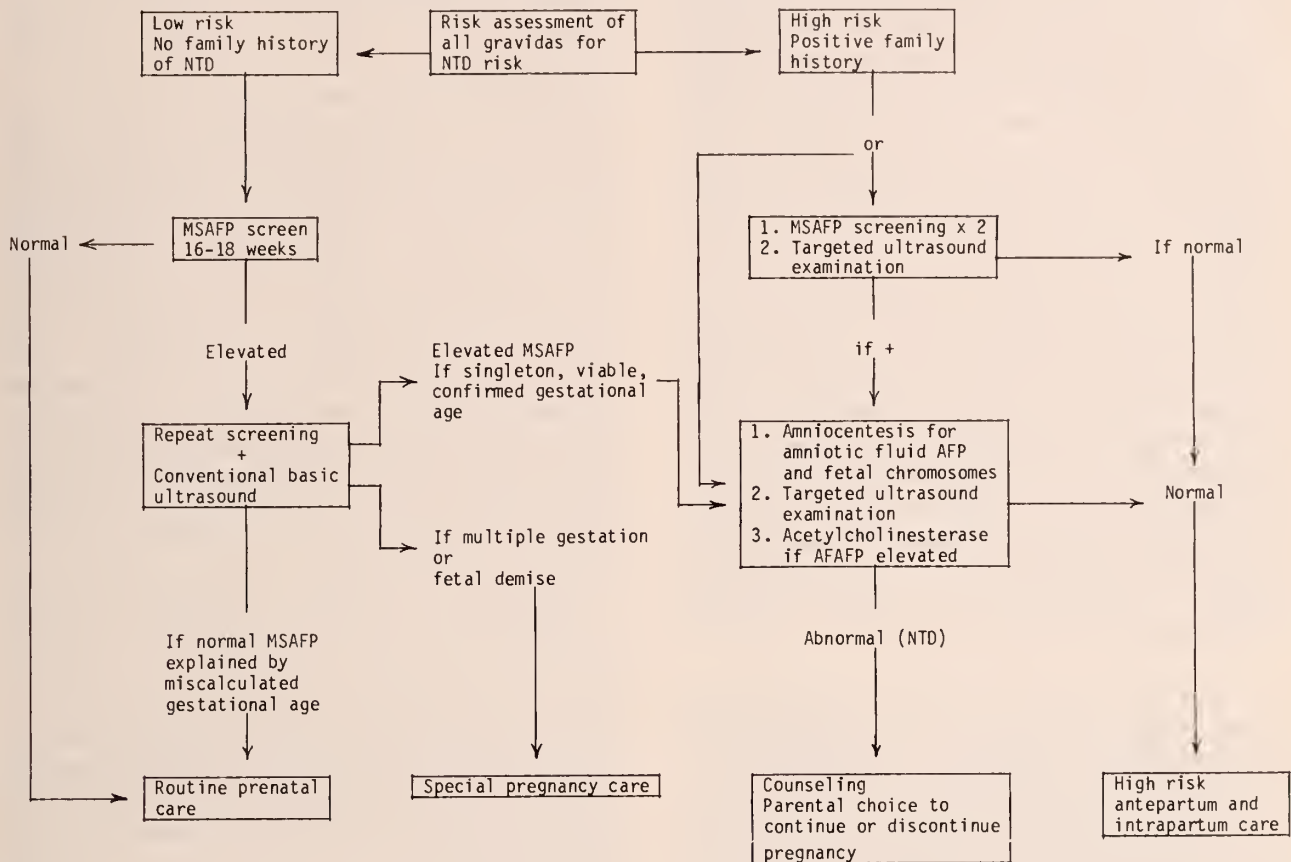
An integral part of prenatal care is the performance of a careful personal and family history for birth defects. For the purpose of prenatal risk assessment of NTDs, all parturients should be divided into those with and those without a positive NTD history (see Figure 1). *Patients with a positive history* should be advised of their risk (see Table 1) and offered MSAFP screening of 16 to 18 weeks' gestation. In addition, a high resolution targeted ultrasound examination should be performed by an individual with extensive experience in prenatal di-

TABLE 1
APPROXIMATE RISKS FOR OCCURRENCE OF NEURAL
TUBE DEFECTS IN GRAVIDAS WITH A POSITIVE
FAMILY HISTORY

<i>Circumstances</i>	<i>Percentage Risk</i>
Positive Family History (Paternal)	0.5%
Positive Family History (Maternal)	1.0%
Either Parent with NTD	3.0%
One Prior Infant with NTD	2.0%
Two Prior Infants with NTD	6.0%

Adapted from ACOG Technical Bulletin Number 99, December 1986, Prenatal Detection of Neural Tube Defects.

Figure 1
Perinatal Risk Assessment for Neural Tube Defects (NTD)



agnosis to identify or exclude NTD and other fetal malformations. If two separate MSAFP screens and the high resolution ultrasound findings are considered to be within normal limits, the patient can be reassured that NTD risk is minimal. Otherwise, genetic counseling with amniotic fluid testing for AFP and fetal chromosomes is advisable with measurement of amniotic fluid acetylcholinesterase (ACE) if the AFAFP is elevated. Because MSAFP screening even on multiple samples can remain within normal limits in the presence of an NTD, an alternative approach for patients with a positive NTD personal or family history is to proceed directly to amniocentesis for assessment of AFAFP with concurrent high resolution targeted ultrasound evaluation.

All other *parturients without a positive history* are candidates for routine MSAFP screening. Based upon recommendations by the American College of Obstetricians and Gynecologists, other published reports as well as our experience at the University Medical Center in Jackson, we recommend the following protocol for prenatal detection of NTDs:

1. The initial step is for all providers of prenatal care to become informed themselves and to provide every prenatal patient preferably with written information about MSAFP screening at the first prenatal visit. Many types of brochures with various levels of reading comprehension are available to meet the needs of various patient populations. All patients must be counseled regarding the voluntary nature, limitations and implications of the screening process, informed that further testing might be recommended and briefly apprised of how the results will be utilized for overall prenatal care. The provider's other responsibility is to arrange for his/her clinic's participation in an established MSAFP screening program for quality and completeness of care. It is the patient's responsibility and not the provider's to decide whether or not to participate in the screening program and then either to sign an informed consent form prior to obtaining the first blood sample or to instruct her provider to record in the prenatal record her decision to forego participation.

2. The optimal time for the screening MSAFP sample is between the sixteenth and eighteenth week of gestation calculated either by basic office ultrasound or from the first day of the last menstrual period. The screening blood sample is sent to a large regional and national reference laboratory licensed to reliably measure and accurately interpret the obtained value based upon presumed gestational age, the patient's body weight, ethnic group, medical disease state such as diabetes mellitus, as well as what is considered elevated or below normal for the specific geographic area. The value is reported as a multiple of the median (MOM) along with an interpretation and recommendation for any further indicated testing. Thousands of samples must be analyzed in order to establish median and multiple of the median levels at each week of gestation for each geographic region and thereby to define suitable cutoff levels for probable normality and abnormality. It is readily apparent that most hospital and commercial laboratories are by their nature inadequate to undertake the full scope of MSAFP screening, interpretation and recommendations.

3. Approximately 4% to 7% of a screened population initially demonstrates elevated MSAFP. If the first sample is elevated but < 3 MOM and the gestational age is < 18 weeks, most programs recommend that patients be screened again immediately. No further testing in patients without a positive NTD history is recommended if the second MSAFP sample is within normal limits for the screening program and patient population.

4. Gravid patients with (a) two elevated MSAFP values, (b) a very elevated initial value (> 3 MOM) and/or (c) an initial single elevated value obtained ≥ 18 weeks' gestation are considered high risk and in need of immediate further counseling and diagnostic evaluation. If not already performed, a conventional basic ultrasound examination is indicated to rule out advanced gestational age, multiple gestation, fetal demise, anencephaly or other major malformations which are well known conditions commonly associated with elevated MSAFP.

5. In the absence of an obvious simple ultrasound explanation for elevated screening MSAFP, diagnostic studies are indicated in the form of amniotic fluid studies obtained via ultrasound-directed amniocentesis and performance of a targeted ultrasound examination by an individual with extensive experience in the detection of fetal malformations. The advanced ultrasound study should identify or

exclude spina bifida, ventral wall defects such as omphalocele and gastroschisis, upper gastrointestinal obstruction, cystic hygroma and renal anomalies such as renal agenesis or obstructive uropathy. Measurement of amniotic fluid AFP (AFAFP) is performed usually in association with chromosomal studies. Amniotic fluid acetylcholinesterase (ACE) is determined only if AFAFP is elevated; above normal values of both markers is strongly suggestive of a NTD. Most pregnant patients with elevated MSAFP will have normal amniotic fluid studies, possibly related to excessive leakage of fetal blood and AFP into the maternal circulation via breaks, increased size, malfunction or malformation of the placenta. Less than 10% of women who undergo amniocentesis will demonstrate elevated AFAFP and acetylcholinesterase, but the majority of those fetuses will have a NTD.¹ High resolution targeted ultrasound is useful to delineate in most cases the size, location and severity of the NTD for purposes of prognosis and pregnancy counseling.

In selected cases of elevated MSAFP it may be acceptable to circumvent diagnostic amniocentesis for AFAFP and fetal chromosomes and proceed directly to high resolution targeted ultrasound by a very experienced sonologist. However, because this policy omits potentially valuable information available only by amniocentesis, such a policy for general use cannot be recommended. Moreover, not all open NTDs are detectable by ultrasound examination alone.

Several specific ultrasound findings have been described recently which are likely to improve the diagnostic accuracy of ultrasonographic evaluation of pregnancies at risk for NTDs. Hydrocephalus, which commonly accompanies and is secondary to open spina bifida,⁵ has been more easily detected by perinatal sonologists than the subtle definition of a visible ultrasound abnormality primarily associated with open spina bifida. Recently, Nicolaides and Campbell have reported that pregnancies with open spina bifida are often associated with biparietal diameters < 5 th centile for gestation, below normal head circumference measurements, scalloping of the frontal bones to produce the "lemon sign," and absent cerebellum or anteriorly curved cerebellar hemispheres and obliteration of the cisterna magna to produce the "banana sign."^{6,7} They also recognize an increase above the 95th centile of the anterior horn of the lateral cerebral ventricle to hemisphere ratio and ventriculomegaly of the posterior horn of the lateral ventricle.^{6,7} While performing a careful assessment for these signs, longitudinal and serial transverse views of the fetal

neural axis performed systemically by an experienced sonologist with an understanding of normal sonographic anatomy will reveal most NTD anomalies.⁸

6. Parturients with elevated MSAFP values but without amniotic fluid abnormalities or those who choose not to undergo amniocentesis are followed as high risk pregnant patients with intensive fetal and intrapartum surveillance as well as serial sonography at monthly intervals beginning at 26 to 28 weeks' gestation. This is recommended because gravidas with elevated MSAFP, in the absence of NTD or other apparent fetal etiology, are at increased risk for other obstetric complications including preterm delivery, low birth weight and intrauterine growth retardation, fetal demise, bleeding and possibly placental abruption. Although MSAFP screening originally was intended for the identification of NTDs, it has become increasingly valuable as a general indicator of high risk pregnancy and is becoming recognized as one of the obstetrician's earliest general monitors of fetoplacental well-being.

7. If anencephaly or another form of open NTD is detected, the significance and implications of the findings should be discussed with the prospective parents in order to assist them in reaching a decision to continue or to terminate the pregnancy. Pregnancy termination regardless of stage of gestation usually is recommended for anencephaly because the condition is uniformly incompatible with life and is accurately diagnosed by ultrasound. At the other end of the NTD spectrum, open spina bifida can be associated with a favorable prognosis. Optimal perinatal care should be provided for parents of continuing pregnancies to include early neonatal and neurosurgical consultation and evaluation. Elective cesarean delivery at term appears to be preferable to vaginal delivery in order to minimize trauma and infection of an open defect.⁹

Conclusions

Risk assessment and prenatal diagnosis for NTD recently has become a routine part of prenatal care in the United States. The American College of Obstetricians and Gynecologists in May 1985 recommended implementation of MSAFP screening to its

members.¹⁰ Moreover, their directive urged that "every prenatal patient be advised of the availability of this test and that the discussion about the test and the patient's decision with respect to the test be documented in the patient's chart."¹⁰ The Mississippi Maternal Serum Alpha-Fetoprotein Screening Project at the University Medical Center was initiated in November 1985 in order to provide a single coordinated MSAFP screening program for our state that contains all the requisite resources and facilities to provide safeguards essential for ensuring prompt, accurate diagnoses and appropriate follow-up services.¹¹ As of October 1, 1987, more than 3087 patients and 87 practitioners had participated in the program. Further efforts are needed to improve perinatal education for patients and providers regarding the special nature and implications of MSAFP screening while other endeavors continue in the field of improved ultrasound diagnosis, NTD prevention, in utero repair of fetal NTDs and improved perinatal and postnatal care for children born with these defects. ★★★

Dr. Martin: 2500 North State Street (39216)

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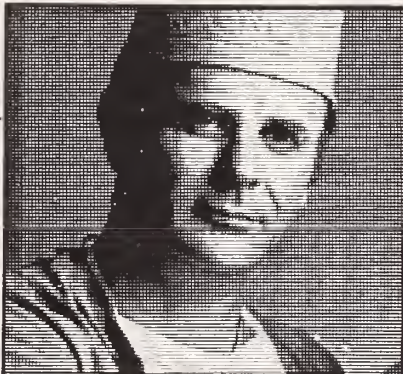
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What is the Role of EEG in the Evaluation of Syncope?

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Jackson, Mississippi

SYNCOPE IS THE sudden and reversible loss of consciousness (LOC) brought about by diffuse cerebral ischemia or anoxia. It is a symptom-complex associated with a variety of causative factors.¹ Although the attack occurs paroxysmally, syncope is not regarded as epileptic. However, if the duration of cerebral ischemia is prolonged, LOC may be attended by brief myoclonic jerks followed by generalized tonic spasm² rendering clinical distinction of syncope from true seizure difficult.

Physicians rarely observe a syncopal attack firsthand and frequently rely upon historical accounts from patients or witnesses. The information surrounding the events may be sparse or unreliable, making it impossible for the clinician to explain the LOC purely on the basis of syncope. In most cases, an EEG is requested to "rule out" cerebral seizure as an alternative cause of the LOC.

In order to assess the value of routine EEG in suggesting seizure as a possible explanation for the LOC, we reviewed and summarized the EEG findings from patients who had syncope or unexplained episodes of LOC.

Materials and Methods

Between July 1984 and February 1986, EEGs that were performed as part of the evaluation of syncope were reviewed at the University of Mississippi EEG Laboratory. Patients were divided into adult (18 years and above) and pediatric (between 5 and under 18 years) age-groups. Fifty-five adults (Adult Group A; 29 females and 26 males, mean age = 45 years) were specifically referred because of syncope. Another 32 adults (Adult Group B; 18 females and 14 males, mean age = 38.8 years) were referred because of unexplained episodic LOC (passing-out, blacking-out, or falling-out spells) without known

Electroencephalography (EEG) is frequently performed in patients with syncope to ascertain whether seizure is a contributory factor for the loss of consciousness (LOC). To determine the efficacy of EEG in clarifying this issue, the author reviewed the EEGs of 124 patients. He reports his findings in this article. He concludes that when used routinely, EEG is of limited value in the evaluation of syncope. However, when it is applied to a restricted group of patients in which there is no non-neurological explanation for the LOC, or when dealing with younger patients, EEG may suggest an alternative etiology.

evidence of seizure activity. There were 37 pediatric patients (21 females and 16 males; mean age = 11.7 years); since the number was relatively small, referrals for syncope and undefined episodes of LOC (without accompanying evidence of seizure activity) were grouped as one with the exclusion of those with breath-holding spells.

A total of 129 EEGs were performed on 124 patients; five patients had an additional repeat EEG. If a patient had at least one abnormal recording, he was considered abnormal from the electrophysiologic standpoint. A majority of the EEGs were recorded by a 16- or 20-channel machine, a smaller number by a 10-channel recorder. Recording techniques followed the guidelines of the American Electroencephalographic Society.³ All patients had awake recordings; spontaneous drowsy and light sleep recordings were occasionally obtained. Activation procedures consisted of photic stimulation at various flash frequencies and three minutes of hyperventilation.

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EEGs were classified as follows: normal, generalized slowing, focal slowing, paroxysmal slow (theta or delta) bursts, spike or sharp wave activity, or containing patterns of uncertain significance such as 6/sec spike-and-wave⁴ and wicket spikes.⁵

Medical records of patients with abnormal EEGs were reviewed to determine outcome of medical treatment as a result of the abnormal test.

Results

Results of EEG recordings are shown in Table 1. The incidences of EEG abnormality (including those with patterns of uncertain significance) in Adult Groups A and B, and Pediatric Group were 21.8%, 18.8%, and 18.9% respectively; the mean ages of patients with normal EEGs in each of the groups were 42.5, 38.8, and 11.5 years and those with abnormal EEGs were 54.0, 38.5, and 12.6 years respectively. Although there were slightly more females referred for EEG testing, the relative incidence of EEG abnormality was much higher in females than in males in all three groups (see Table 2).

Of 55 adults with syncope, one (1.8%) had bilateral small amplitude posterior spike abnormality. Among 32 adults with undefined episodes of LOC, one (3.1%) had temporal sharp activity. However, in 37 pediatric cases, four (10.8%) showed the following abnormalities: bilateral independent occipital spikes, generalized 4 cps spike-and-wave bursts, fronto-central spikes or polyspikes, and temporal sharp waves.

Four out of six (1 adult and 3 pediatric) patients with EEG findings of spikes or sharp waves in which no other cause had been found to explain the episodic LOC, were given a trial of anticonvulsant therapy. Three patients showed improvement or reduction in their spells, while one showed worsening of symptoms and anticonvulsant treatment had to be discontinued.

Discussion

In this study, the primary purpose of the referring physicians in requesting EEGs for patients with syncope was to determine whether there was a component of cerebral seizure. Our findings indicate that the incidence of EEG abnormality reflecting possible seizure diathesis (presence of spikes or sharp waves) was low in adults with syncope (1.8%). In those patients with undefined episodes of LOC, in which there were some uncertainties about the di-

TABLE 1
CLASSIFICATION OF EEG FINDINGS

EEG Classification	Adult Group A*	Adult Group B†	Pediatric Group‡
1. normal	43	26	30
2. generalized slowing	3	0	0
3. focal slowing	4	2	2
4. paroxysmal slow bursts	2	2	0
5. spikes or sharp waves	1	1	4
6. patterns of uncertain significance:			
a. wicket spikes	2	1	0
b. 6/s spike-and-wave	0	0	1
Total no. of patients:	55	32	37

* Patients with syncopal episodes.

† Patients with unexplained loss of consciousness without evidence of seizure activity.

‡ Includes patients with syncope and those with unexplained episodes of loss of consciousness without manifestations of seizures.

TABLE 2
EEG RESULTS ACCORDING TO SEX

Group	Normal EEG	Abnormal EEG
1. Adult Group A:		
Females (N = 29)	21 (72.4%)	8 (27.6%)
Males (N = 26)	22 (84.6%)	4 (15.4%)
2. Adult Group B:		
Females (N = 18)	13 (72.2%)	5 (27.8%)
Males (N = 14)	13 (92.9%)	1 (7.1%)
3. Pediatric Group:		
Females (N = 21)	16 (76.2%)	5 (23.8%)
Males (N = 16)	14 (87.5%)	2 (12.5%)

agnosis of syncope, the incidence was comparatively higher (3.1%). A great proportion of the abnormal recordings showed nonspecific features related to cerebrovascular or systemic medical illness, or aging. However, the incidence of spike or sharp wave abnormality was much higher (10.8%) in pediatric patients with syncope or uncharacterized episodic LOC. This is in contrast to the 1.9% reported incidence of focal spikes in a selected group of normal children.⁶

EEG has limited value when utilized routinely in the evaluation of syncope. However, when it is applied to a restricted group of patients in which there are no other nonneurological explanation for the recurrent LOC, or if one is dealing with young patients who cannot give a succinct history, EEG may suggest an alternative etiology such as seizure. EEG may also serve to screen and identify those few

patients that may need further electrophysiological testings such as ambulatory cassette EEG recording and long-term EEG-video monitoring which are expensive procedures, but sometimes the only means to document EEG changes during a spontaneous attack.

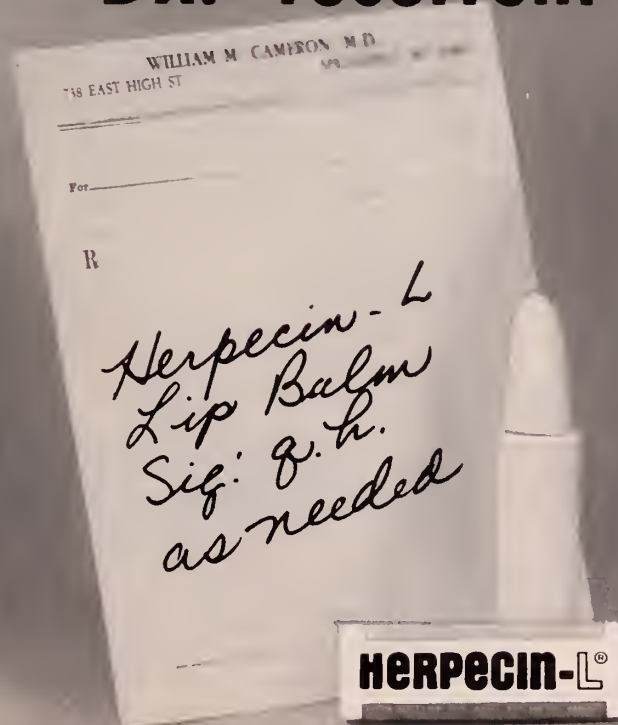
★★★

2500 North State Street (39216)

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The President Speaking

The Spirit of Christmas

W. LAMAR WEEMS, M.D.
Jackson, Mississippi

"I bring you good tidings of great joy, which shall be to all people. For unto you is born this day in the city of David a Savior, which is Christ the Lord."

St. Luke 2:10-11

Christmas has always been my favorite holiday. To be honest, the most cherished features have been secular things such as childhood memories and the association of Christmas, in my mind, with family gatherings and good friends. The Christmas season is a felicitous time, pervaded by a warm and mellow mood of goodwill and friendship. But it is also the commemoration of the birth of Jesus Christ. And it is also the peak season for retail profits. The present day celebration of Christmas is an odd mixture of religious observances, pagan rituals, and commercial opportunism.

Many believers are perturbed that Christmas seems to be losing its religious flavor — and rightfully so. It is clearly the duty of all Christians and of all Christian churches, at this time of year, to proclaim to the world, in messages that can be heard, that on this day was born a Savior — for all mankind. People need to be reminded. Government can't properly help much with this responsibility and neither can business because religion becomes defiled when it is overly exposed to the possibility of exploitation by politicians for political gain or by businessmen for profit.

But, in the effort to "put Christ back into Christmas," Christians shouldn't denigrate the value, in a secular sense, of conviviality, good cheer, generosity, and goodwill among men. These virtues are not the exclusive property of Christianity. Neither is the profit motive altogether bad. The stimulus provided to the economy by the business of Christmas helps create jobs and generate personal income and taxes which make it possible, for example, to pay for schools, for sanitation, for health care — and for the construction of churches.

The spirit of Christmas in its finest expression springs from the teachings of Jesus Christ. He intended, I believe, for this spirit to be shared by all mankind. These thoughts lead me to consider for a moment the connection between religion and medicine, which seems appropriate in a Christmas message because of some strong parallels between the spirit of Christmas and the spirit of medical professionalism. My personal belief is that the teachings of Christ are in complete harmony with the highest order of medical ethics and are, in all particulars, consistent with the science. The role of Christ as the Great Physician has always identified the practice of medicine with His life. Nevertheless, the practice of medicine, per se, is a secular pursuit. Within the ranks of the medical profession are many fine physicians — worthy citizens and good friends — who pray to a different god while subscribing faithfully to the Principles of Medical Ethics and achieving outcomes in patient care which are indistinguishable from results achieved by the followers of Christ. The message is that Christians don't have an exclusive claim on medical professionalism nor upon the spirit of this holiday season. It would be unchristian to try to be so selfish. Both these treasures are meant to be shared in a most generous way by all persons of goodwill.

Merry Christmas and a Happy New Year.

"God bless us every one."

★★★

EDITORIALS

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

VOLUME XXVIII, NUMBER 12
DECEMBER 1987

Supercollider Project Will Affect Health Professions

In February, 1987 the Department of Energy announced plans to select a site for a new scientific research facility in the field of high energy physics, the Superconducting Super Collider.

Mississippi officials wisely recognized that our state had the necessary geological structures and support facilities to be very competitive in the bidding for this project. With unanimous support from the legislature a program has been developed and proposals submitted for this multi-billion dollar project. This proposal is very complete, covering the engineering, environmental, socio-economic and geographic aspects, as well as information systems, cost sharing/planning, and support utilities.

We hope the many hours and dollars spent on this proposal will be rewarded by selection of Mississippi as the home for the Superconducting Super Collider project.

A project of this magnitude will affect the lives of all Mississippians and particularly those in the immediate area. One major effect will be an increase in demands for health care at all levels — physicians, hospitals, public health services, and all par-medical services.

As Mississippians and members of the scientific community, the Mississippi State Medical Association needs to go on record as a strong supporter of this endeavor and be ready to assist the project task force in any way possible.

MYRON W. LOCKEY, M.D.
Editor

COMMENT

Obesity Bubbles

A recent communication in the JOURNAL MSMA (April 1987) by Doctors Langford and Nicholas addressed the continued use of unproven and often harmful approaches to the treatment of obese pa-

tients. Their comments are timely and should cause genuine concern to healthcare professionals in Mississippi.

The use of thyroid hormones, diuretics, amphetamines and other appetite suppressants for use in weight loss therapy was appropriately condemned by the authors. Sadly however, Mississippi physicians continue to see obese patients who have been given various combinations of these potentially life-threatening modalities.

Recently, the "gastric bubble" was introduced as an alternative to obesity surgery. The gastric bubble is an endoscopically placed, free-floating man-made bezoar. The bubble was released by the FDA for general use in 1985 and was considered safe and effective as an adjunct in weight loss therapy.

We recently had the opportunity to study the gastric bubble for obesity in a randomized, double-blinded, sham-controlled study which was coordinated through St. Dominic Hospital. Fifty-nine obese subjects were entered into a program in which they received either the gastric bubble for obesity or a sham bubble placement at the time of endoscopy. They were then followed for weight loss with the bubble (or sham) in place for three months, and then chronic weight trends were followed for one year. Although a \$500 deposit was required of all participants, this was refunded if they completed 80% of all following classes. Endoscopy lab charges, laboratory fees, physician services, etc., were waived.

The actual weight loss results are summarized in Table 1 and Table 2. No beneficial effect was obtained from the bubble as compared to a sham procedure with standard weight loss therapy.

Recently, as the result of this study and two other prospective randomized studies which were presented at the National Digestive Disease meeting in Chicago, a consensus statement was released by the American Society for Gastrointestinal Endoscopy and by The American Medical Association's Panel of Diagnostic and Therapeutic Technology Assessment. It is the opinion of both these widely respected

COMMENT/Continued

groups that the gastric bubble for obesity should be restricted to controlled clinical trials until a bubble is developed and proven to be efficacious.

The lack of efficacy alone is enough to recommend withdrawal of this product; however, one of the major drawbacks of its use is the fact that in two years there have been over 72 cases of small bowel obstruction secondary to the spontaneous deflation and subsequent impaction of these bubbles in the small bowel. All 72 of those reported cases required surgery. One case resulted in a patient death.

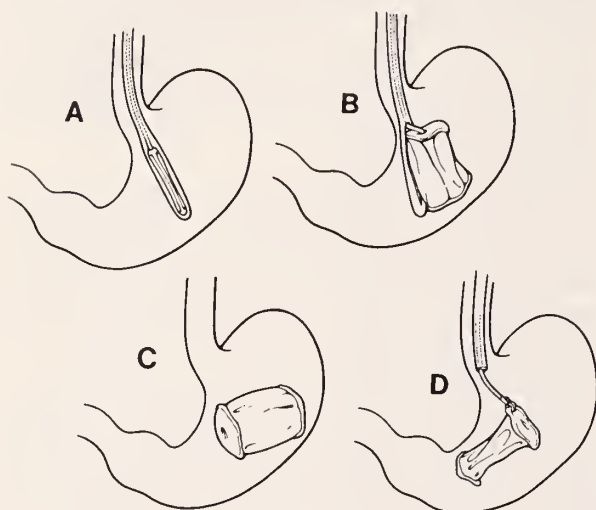


Figure 1: (A) Insertion of overtube containing deflated bubble. (B) Insufflation with 200ccs of air. (C) Overtube removed, bubble left in place. (D) Removal with endoscopic graspers after puncture and deflation.

TABLE I
RESULTS-WEIGHT LOSS
3 MONTHS OF TREATMENT

	Lbs.	%Wt.	BMI
Bubbles N = 34	18.7	7.2	3.0
Controls N = 22	17.2	8.3	3.5

TABLE II
MORBID OBESITY

	Average Weight		Average Loss	
	Lbs.	BMI	Lbs.	BMI
Bubble N = 15	280	43.9	23	3.4
Sham N = 6	284	43.5	25	3.8

The other important factor is the expense of the device. It has been estimated that a three-month treatment with the bubble including insertion and removal charges, etc. can average \$3,000 to 4,000.

Our study, like other well designed programs, have shown that weight loss can be achieved when the programs are structured around standard weight loss therapy including frequent visits to a trained dietician and behavior modification therapist. As emphasized by Dr. Langford and Dr. Nicholas, it is imperative that we as physicians educate the public as well as our colleagues about the potentially harmful and expensive modalities that are being offered to obese patients in our area.

REED B. HOGAN, M.D.
JAMES H. JOHNSTON, M.D.
BILLY W. LONG, M.D.
JAMES Q. SONES, M.D.
Jackson, Mississippi

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MEDICAL ORGANIZATION

Heart Association Establishes Hollingsworth Memorial Research Award

Edward Hill, M.D., president of the American Heart Association in Mississippi, announces the establishment of the Jefferson F. Hollingsworth, M.D., Memorial Clinical Research Award. The award honors the memory and work of the late Dr. Hollingsworth, who served as president of the Mississippi Affiliate in 1985-86. It was Dr. Hollingsworth's intention that clinicians be encouraged to participate in cardiovascular research.

The purpose of the award is to support a 12-month clinical research project in the field of cardiovascular medicine or surgery. Applications will be accepted from physicians in private practice or academic medicine. For information, contact American Heart Association, Mississippi Affiliate, P.O. Box 16808, Jackson, MS 39236.

Dr. Phillips Appointed Chairman, UMC Department of Family Medicine

Dr. D. Melessa Phillips, associate professor of family medicine at the University of Mississippi Medical Center, recently was appointed chairman of the Department of Family Medicine.

Dr. Norman C. Nelson, vice chancellor for health affairs and dean of the School of Medicine, announced her appointment following approval by the Board of Trustees of State Institutions of Higher Learning. She succeeds Dr. Wilfred R. Gillis, who had chaired the department since its creation in 1972.

Dr. Phillips joined the UMC Faculty in 1976 as instructor in family medicine. She earned the B.S. at Newcomb College and the M.D. in 1973 at Tulane University. She completed her internship and residency at UMC before her faculty appointment.

Dr. Phillips was promoted to assistant professor of family medicine in 1977, and moved to the rank of associate professor in 1982. She has been vice-chairman of the Department of Family Medicine since 1986, and was director of Student Division Programs from 1976-1986. She was the 1983 and 1986 recipient of the department's Golden Stethoscope Award for Excellence in Clinical Teaching.

A member of the School of Medicine Curriculum Committee since 1979, she also holds an appointment on the Executive Committee of the University Hospital, and is clinical assistant professor of diagnostic sciences in the School of Dentistry.

Dr. Phillips, a fellow of the American Academy of Family Physicians and diplomate of the American Board of Family Practice, is a member of the Society of Teachers of Family Medicine for which she serves on the Special Committee for Revision of RRC "Special Requirements" for Family Practice Residency Training. She is a member of the American Medical Women's Association, Southern Perinatal Association, and the Southern Medical Association. She also serves on the Board of Directors of the American Cancer Society Mississippi Chapter, and the Professional Education Committee of the American Diabetes Association.

Dr. Hardy Appointed to VA Distinguished Physicians Program

Dr. James D. Hardy, professor emeritus of surgery at the University of Mississippi Medical Center, is one of three new physicians appointed to the Veterans Administration Distinguished Physicians Program. He is one of 12 physicians in the country to serve in the program. The other new appointees are Dr. Thomas Chalmers of Boston, Massachusetts, an internist and researcher who is recognized as a leader in the clinical evaluation of drugs and procedures, and Dr. Harriet Dustan of Birmingham, Alabama, an internist and clinician recognized for her work in the field of clinical and experimental hypertension.

Dr. Hardy was professor of surgery and chairman of the department at the Medical Center from 1955, the year the facility opened, until his retirement on October 31, this year.



Medicine Schillig Scholars Gather



The Schillig scholars in the School of Medicine at the University of Mississippi Medical Center recently met with James Baird, center front, trustee of the Otilie Schillig Trust, Dr. Norman Nelson, UMC vice chancellor, left front and Dr. R. Gerald Turner, right front, chancellor of the University of Mississippi. Students, back row from left, are James Love Moore Jr., Nathan Felding Bradford, Susan Denise Sullivan, Leon Lucien Parks III, Michael Stacy Thaggard, and James Rieves McAuley.



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MEETINGS

National and Regional

American Medical Association, Annual Meeting, June 26-30, 1988, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

State and Local

Mississippi State Medical Association, 120th Annual Session, June 15-19, 1988, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, July 27-30, 1988, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

Amite-Wilkinson Counties Medical Society, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

Central Medical Society, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., 735 Riverside Dr., Jackson, MS 39202. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

Claiborne County Medical Society, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

Clarksdale and Six Counties Medical Society, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

Coast Counties Medical Society, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

Delta Medical Society, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

DeSoto County Medical Society, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

East Mississippi Medical Society, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

Homochitto Valley Medical Society, Meetings scheduled quarterly. Fred G. Emrick, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

North Central District Medical Society, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Chocataw, Grenada, Holmes, Montgomery, Webster.

Northeast Mississippi Medical Society, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

North Mississippi Medical Society, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

Pearl River County Medical Society, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

Prairie Medical Society, 2nd Tuesday, March, June, September, December. R. Ray Lyle, Secy., P.O. Box 1507, Starkville, MS 39759. Counties: Clay, Oktibbeha,

Singing River Medical Society, 1st Wednesday, February, April, June, August, October, December. John J. McCloskey, Secy., 3003 Short Cut Rd., Pascagoula 39567. County: Jackson.

South Central Mississippi Medical Society, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

South Mississippi Medical Society, 2nd Thursday, March, June, September, December. George R. Bush, Secy., 307 S. 13th Ave., Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

West Mississippi Medical Society, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

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Tupelo, MS 38801

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Hattiesburg, MS 39401

Mississippi Baptist Medical Center
1225 N. State Street
Jackson, MS 39201

Gulf Coast Community Hospital
4642 W. Beach Boulevard
Biloxi, MS 39531

Jefferson Davis Memorial Hospital
Box 1488
Natchez, MS 39120

King's Daughter Hospital
Box 948
Brookhaven, MS 39601

Riverside Hospital
Lakeland Drive
Jackson, MS 39208

Biloxi Regional Medical Center
1559 Lafayette St.
Biloxi, MS 39533

Jeff Anderson Regional Medical Center
2124 14th St.
Meridian, MS 39301

Northwest Mississippi Regional Medical Center
Box 1218
Clarksdale, MS 38614

North Panola County Hospital
Drawer 160
Sardis, MS 38666

Singing River Hospital
P.O. Box 112
Pascagoula, MS 39567

Magnolia Hospital
Alcorn Drive
Corinth, MS 38834

Greenwood Leflore Hospital
1508 Leflore Avenue
Greenwood, MS 38930

Gulfport Memorial Hospital
4500 13th Street
Gulfport, MS 39501

Oxford-Lafayette County Hospital
P.O. Box 946
Oxford, MS 38655

St. Dominic-Jackson Memorial Hospital
969 Lakeland Dr.
Jackson, MS 39216

Delta Medical Center
P.O. Box 5247
Crossroads Station
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Methodist Hospital
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Hattiesburg, MS 39401

POSTGRADUATE CALENDAR

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COURSE
Feb. 18-20
University Medical Center

March

NUCLEAR MEDICINE UPDATE
March 5
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March 10-12
Holiday Inn Downtown, Jackson

April

SPRING SONIC SYMPOSIUM
April 9
Natchez Eola Hotel, Natchez

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ING
April 9-10
Holiday Inn Downtown, Jackson

DIAGNOSIS AND TREATMENT OF INFECTIONS IN DI-
ABETES MELLITUS
April 27-30
Ramada Renaissance Hotel, Jackson

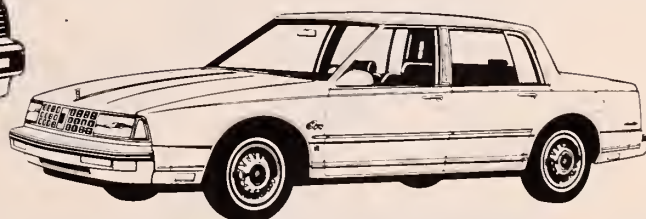
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PERSONALS

GEORGE E. ABRAHAM of Vicksburg was speaker for a community seminar on AIDS.

JAMES ACHORD of UMC was a site visitor for the Graduate Medical Education Accreditation Council in Bridgeport, Connecticut.

ORLANDO ANDY of UMC presented an abstract at a meeting of the Pavlovian Society in Hiroshima, Japan.

BLAIR BATSON of UMC was examiner for the American Board of Pediatrics in Chicago.

JAMES BECKHAM has associated with Gamble Brothers and Archer Clinic in Greenville for the practice of obstetrics and gynecology.

SIDNEY W. BONDURANT of Grenada has been elected chief of staff at Grenada Lake Medical Center. Outgoing chief D. L. HARRISON was honored by the Board of Trustees for his services.

RICHARD C. BORONOW of Jackson made presentations and moderated a workshop at the first meeting of the International Gynecologic Cancer Society in Amsterdam, the Netherlands. He also attended meetings of the International Society of Pelvic Surgeons in Milan, Florence, and Rome, Italy, in his capacity as secretary-treasurer and program committee chairman of the society.

TROY CAPPLEMAN announces the opening of his office for the practice of family medicine at Tippah Medical Group Building in Ripley.

BENJAMIN M. CARMICHAEL of Hattiesburg was a speaker at a seminar on the prevention and treatment of heart disease at the Institute for Wellness and Sports Medicine.

V. FRANK CAREY of Greenville announces his retirement from the practice of urology.

JACK Q. CAUSEY of Centreville was recently recognized for advanced achievement in internal medicine by the American Board of Internal Medicine.

STEPHEN L. CONERLY of Hattiesburg was speaker at a continuing medical education seminar at Forrest General Hospital.

RICHARD CONN of Hattiesburg was speaker at a meeting of the local Arthritis Support Group.

WALTER CRAWFORD of Tylertown spoke at a recent meeting of Friends of the Library.

ROY D. DUNCAN of Pascagoula has been elected chief of staff at Singing River Hospital.

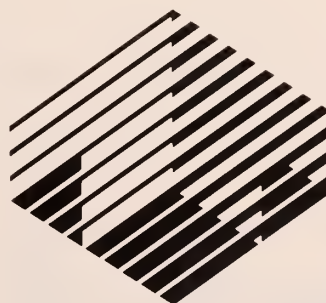
FRED G. EMRICK of Natchez has been elected to the Board of Directors of the Natchez-Adams County Chamber of Commerce.

JAMES V. FERGUSON of Greenwood has been elected chief of staff at Greenwood Leflore Hospital.

RICHARD J. FIELD, JR. was elected to his second three-year term as a member of the Board of Regents of the American College of Surgeons at its Clinical Congress in San Francisco. He recently spoke to the South Carolina Chapter of the ACS in Greenville.

ALAN FREELAND of UMC was instructor at the AAS Summer Institute course in Boston and presented a paper at the annual meeting of the Society for Surgery of the Hand in San Antonio, Texas.

HARRY C. FRYE of Magnolia recently was recognized for 30 years of continued membership in the American Academy of Family Physicians at the AAFP's annual meeting in San Francisco.



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PERSONALS/Continued

JAMES FUNDERBURG of Natchez has been named medical director of Restore, the chemical dependency treatment unit at Humana Hospital in Natchez.

WILLIE E. GREER of Meridian gave a presentation on his mission trip to India at a meeting of the Northeast Development Club.

RAYMOND F. GRENFELL, JR. of Jackson discussed adult onset diabetes at a meeting of the Mended Hearts.

DAVID G. HALL, chief resident in the UMC Department of Family Medicine received the national first prize for original research by a family practice resident at the Scientific Assembly of the American Academy of Family Physicians in San Francisco. His presentation was entitled, "Fatigue: A New Approach to an Old Problem."

LEWIS HATTEN of Hattiesburg spoke on "Peripheral Vascular Disease and Atherosclerosis" at the quarterly meeting of Hattiesburg's "Forever Young" group.

MARTIN HERMAN of Tupelo was inducted into the We Care, Inc. Royal Court at a Leadership Conference held in Charlotte, North Carolina.

HAROLD HUDSON of Tupelo was officially recognized as a fellow of the American Academy of Facial Plastic and Reconstructive Surgery at its meeting in Chicago.

ROBERT JORDEN of UMC attended a steering committee meeting of the Southern Medical Association in Atlanta.

KERMIT LAIRD of Starkville was speaker at a meeting of Oktibbeha County Hospital Auxiliary.

HERBERT LANGFORD of UMC presented a series of lectures at the Earl K. Long Hospital in Baton Rouge, Louisiana, and was speaker for a satellite symposium of the Third European Meeting on Hypertension in Athens, Greece.

RONALD R. LUBRITZ of Hattiesburg was speaker at a continuing medical education seminar at Forrest General Hospital.

JOSE MADARA of Booneville recently was elected to membership in the American Society for Gastrointestinal Endoscopy and the Society of American Gastrointestinal Surgeons.

THOMAS S. MESSER of Hattiesburg was speaker at a recent seminar on "Prevention and Treatment of Heart Disease."

WILLIAM NICHOLAS of UMC spoke at a hospital staff meeting at Starkville Hospital and presented a seminar on diabetes at the Southwest Mississippi Regional Medical Center in McComb.

SESHADRI RAJU of UMC attended a board of directors meeting of the Southeastern Organ Procurement Network in Nashville.

LAWRENCE E. STEWART has associated with Southwest Mississippi Ear, Nose and Throat Clinic, P.A. in McComb for the practice of otolaryngology, facial plastic and reconstructive surgery.

CHARLES P. STROBLE of Ocean Springs has been elected chief of staff at Ocean Springs Hospital.

ROBERT S. TARVER has associated with W. R. RUEFF and FRED W. RUSHTON of Jackson for the practice of general and vascular surgery.

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TATE THIGPEN of UMC spoke at the International Conference on Current Dilemmas in Gynecology-Oncology in Birmingham, England.

ED THOMPSON of Jackson was speaker at a public forum on AIDS held at the Vicksburg Auditorium.

PLEZ TINSLEY of Meridian recently presented a lecture on facial paralysis at the surgical anatomy and temporal bone dissection course held at the Dallas (Texas) Foundation of Otology.

WILLIAM E. WALKER of Hattiesburg has been named a fellow of the American Academy of Family Physicians.

LAMAR WEEMS of UMC spoke at the Lee County Leadership Conference in Tupelo and participated in the Council on Hospital Medical Staffs of the American Hospital Association in Chicago.

ROBERT L. WILLIAMS of Biloxi presented the keynote speech for the annual conference of Mississippi Association for Children and Adults with Learning Disabilities. He also presented a lecture for the annual conference of the Mississippi Psychological Association.

ALLEN YATES of Jackson was named a fellow of the American College of Radiology at its annual meeting in San Diego, California.

Review A Book

Members of MSMA interested in reviewing any of these volumes should address requests to Editor, JOURNAL MSMA. After submitting a review for publication, you may keep the book for your personal library.

Neurology: Problems in Primary Care. James L. Bernat, M.D. and Frederick M. Vincent, M.D. Oradell, New Jersey: Medical Economics Books, 1987.

Neuroanatomy: An Atlas of Structures, Sections and Systems.

Duane E. Haines, Ph.D. Baltimore, Maryland: Urban & Schwarzenberg, 1987. \$22.50.

CPT & HCPCS Coding for Optimal Reimbursement. Gary M. Knaus, M.B.A. Downers Grove, Illinois: Medical Administration Publications, 1987. \$39.95.

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Medico-Legal Brief

AMA Negotiates PRO Process Improvements

Earlier this year, the AMA brought suit against the federal government seeking revisions in the Peer Review Organization (PRO) procedures. PROs are organizations under contract with Medicare to review the quality of care provided to Medicare beneficiaries. PROs are authorized to recommend that sanctions be imposed against physicians when they find from their review that the quality of care provided by the physician was deficient. Sanctions may include either monetary penalties or exclusion from the Medicare program. The severity of these sanctions only serves to emphasize the importance of the procedures by which the reviews are conducted and the sanctions recommended. It is vitally important that these procedures be fair and objective, and that they permit the physician an adequate opportunity to defend himself.

As a result of the lawsuit, negotiations ensued between HCFA and the Office of the Inspector General (OIG) on the one hand and AMA and the American Association of Retired Persons (AARP) on the other. Those negotiations have resulted in some significant revisions in the PRO procedures which safeguard the physician's "due process" rights. These revisions have been communicated to the PROs and are in force for all sanction recommendations made after May 13, 1987. They include the following:

- New form letters will be used by PROs when advising physicians that they may be subject to sanctions. These letters will more clearly explain the problem that has been identified, the procedure to be followed and the importance of meeting with the PRO as well as the potential results of a sanction. This is intended to improve the notice to be provided to the physician.
- The physician will have the right to be represented by an attorney who may assist the physician in the presentation of evidence and testimony by witnesses on behalf of the physician. In the past, attorneys have not been permitted to participate in the physician's meeting with the PRO when it is considering a sanction.
- The PRO will hold a meeting with the physician within 30 days of the physician's request for a meeting after being informed of the PRO's review. This will expedite the procedure significantly.
- Verbatim records of the meetings between the physician and the PRO will be made and will be available to the physician. In the past some PROs had only "minutes" of such meetings.
- Additional information relevant to the possible sanction can be submitted by the physician to the PRO within 5 working days of the physician's meeting with the PRO.
- No physician member of the PRO panel making a final sanction determination may have a personal bias against the physician being reviewed nor be in direct economic competition with the physician.
- A reviewing physician who recommends that the physician be sanctioned may not vote on the PRO's final determination as to a sanction.
- A regulatory alternative will be developed to the current practice of publishing newspaper notices regarding physicians excluded from Medicare. The alternative would permit the physician to personally inform his patients that Medicare would no longer pay for his services. The current practice of notifying hospitals at which the physician has privileges, as well as state licensing boards will continue.
- In an effort to correct a common misunderstanding the government will publicize that an administrative law judge in a PRO sanction case can accept any evidence offered by a physician that is relevant and material, even if the information was not previously submitted to the PRO or the OIG.
- HCFA will convene a meeting in the near future to consider other improvements in the sanction process.

Although the AMA voluntarily dismissed the suit following the agreement, the AMA will continue to monitor the PRO procedures and will actively seek to further improve the "due process" rights of physicians being reviewed.

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In patients with hepatic cirrhosis and ascites, sudden alterations of electrolyte balance may precipitate hepatic encephalopathy and coma. Treatment in such patients is best initiated in the hospital with small doses and careful monitoring of the patient's clinical status and electrolyte balance. Supplemental potassium and/or spirinolactone may prevent hypokalemia and metabolic alkalosis in these patients. In cats, dogs and guinea pigs, Bumex has been shown to produce ataxicity. Since Bumex is about 40 to 60 times as potent as furosemide, it is anticipated that blood levels necessary to produce ataxicity will rarely be achieved. The potential for ataxicity increases with intravenous therapy, especially at high doses.

Patients allergic to sulfonamides may show hypersensitivity to Bumex.

PRECAUTIONS: Measure serum potassium periodically and add potassium supplements or potassium-sparing diuretics, if necessary. Periodic determinations of other electrolytes are advised in patients treated with high doses or for prolonged periods, particularly in those on low salt diets.

Hyperuricemia may occur. Reversible elevations of the BUN and creatinine may occur, especially with dehydration and in patients with renal insufficiency. Bumex may increase urinary calcium excretion. Possibility of effect on glucose metabolism exists. Periodic determinations of blood sugar should be done, particularly in patients with diabetes or suspected latent diabetes. Patients should be observed regularly for possible occurrence of blood dyscrasias, liver damage or idiosyncratic reactions.

Especially in presence of impaired renal function, use of parenterally administered Bumex should be avoided in patients to whom aminoglycoside antibiotics are also being given, except in life-threatening conditions.

Drugs with nephrotoxic potential and bumetanide should not be administered simultaneously. Since lithium reduces renal clearance and adds a high risk of lithium toxicity, it should not be given with diuretics.

Probenecid should not be administered concurrently with Bumex.

Concurrent therapy with indomethacin not recommended.

Bumex may potentiate the effects of antihypertensive drugs, necessitating reduction in dosage.

Interaction studies in humans have shown no effect on digoxin blood levels.

Interaction studies in humans have shown Bumex to have no effect on warfarin metabolism or on plasma prothrombin activity.

Pregnancy: Bumex should be given to a pregnant woman only if the potential benefit justifies the potential risk to the fetus.

Bumetanide may be excreted in breast milk.

Pediatric Use: Safety and effectiveness below age 18 not established.

ADVERSE REACTIONS: Muscle cramps, dizziness, hypotension, headache and nausea, and encephalopathy (in patients with preexisting liver disease).

Less frequent clinical adverse reactions are weakness, impaired hearing, rash, pruritus, hives, electrocardiogram changes, abdominal pain, arthritic pain, musculoskeletal pain and vomiting. Other clinical adverse reactions are vertigo, chest pain, ear discomfort, fatigue, dehydration, sweating, hyperventilation, dry mouth, upset stomach, renal failure, asterixis, itching, nipple tenderness, diarrhea, premature ejaculation and difficulty maintaining an erection.

Laboratory abnormalities reported are hyperuricemia, azotemia, hyperglycemia, increased serum creatinine, hypochloremia, hypokalemia, hyponatremia, and variations in CO₂ content, bicarbonate, phosphorus and calcium. Although manifestations of the pharmacologic action of Bumex, these conditions may become more pronounced by intensive therapy. Diuresis induced by Bumex may also rarely be accompanied by changes in LDH, total serum bilirubin, serum proteins, SGOT, SGPT, alkaline phosphatase, cholesterol, creatinine clearance, deviations in hemoglobin, prothrombin time, hematocrit, platelet counts and differential counts. Increases in urinary glucose and urinary protein have also been seen.

DOSAGE AND ADMINISTRATION:

Oral Administration: The usual total daily dosage is 0.5 to 2.0 mg and in most patients is given as a single dose.

Parenteral Administration: Administer to patients (IV or IM) with GI absorption problem or who cannot take oral. The usual initial dose is 0.5 to 1 mg given over 1 to 2 minutes. If insufficient response, a second or third dose may be given at 2 to 3 hour intervals up to a maximum of 10 mg a day.

HOW SUPPLIED: Tablets, 0.5 mg (light green), 1 mg (yellow) and 2 mg (peach), bottles of 100 and 500, Prescription Paks of 30, Tel-E-Dose[®] cartons of 100. Imprint on tablets: 0.5 mg—ROCHE BUMEX 0.5, 1 mg—ROCHE BUMEX 1, 2 mg—ROCHE BUMEX 2.

Ampuls: 2 ml, 0.25 mg/ml, boxes of ten.

Vials: 2 ml, 4 ml and 10 ml, 0.25 mg/ml, boxes of ten.

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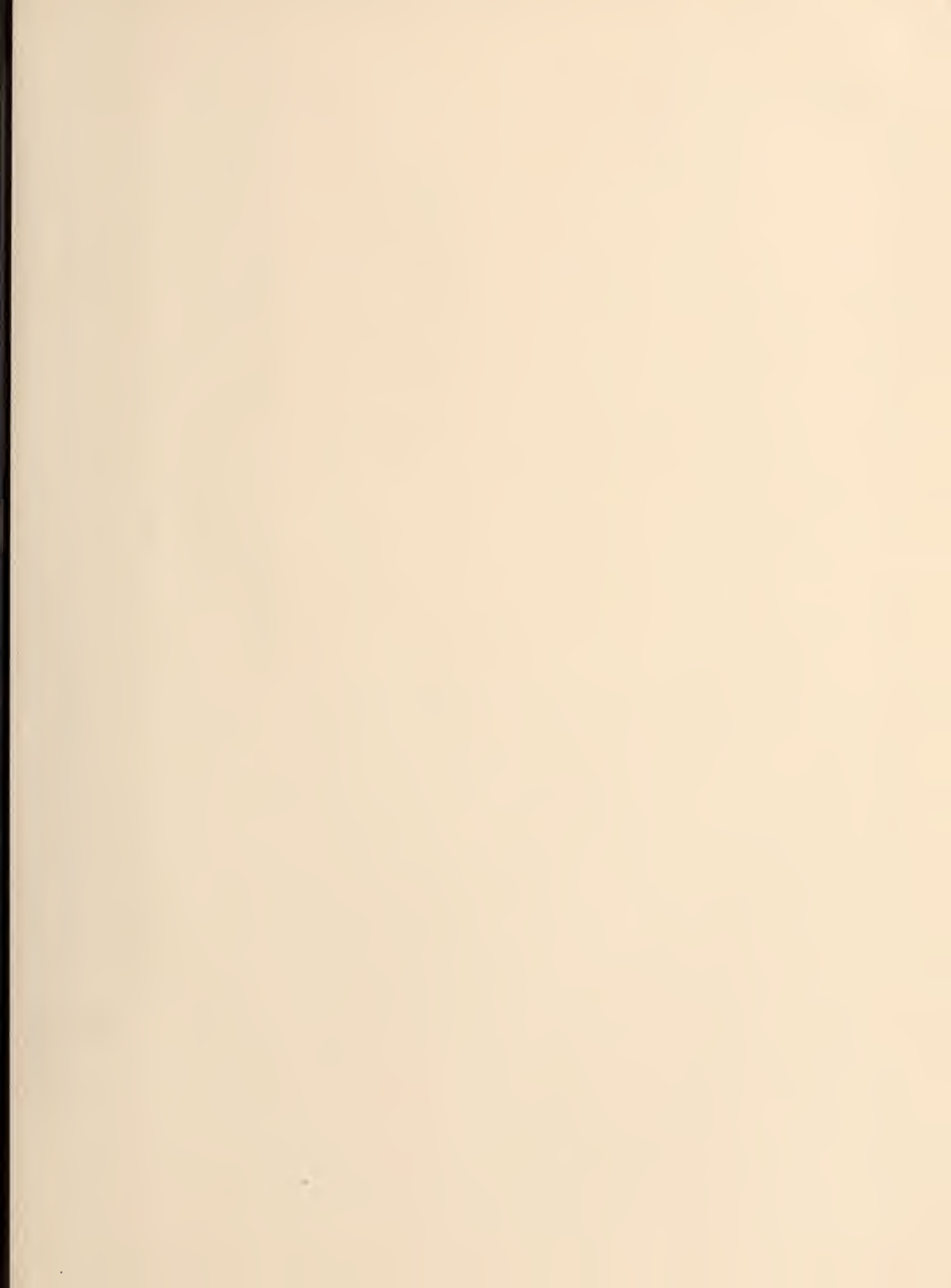
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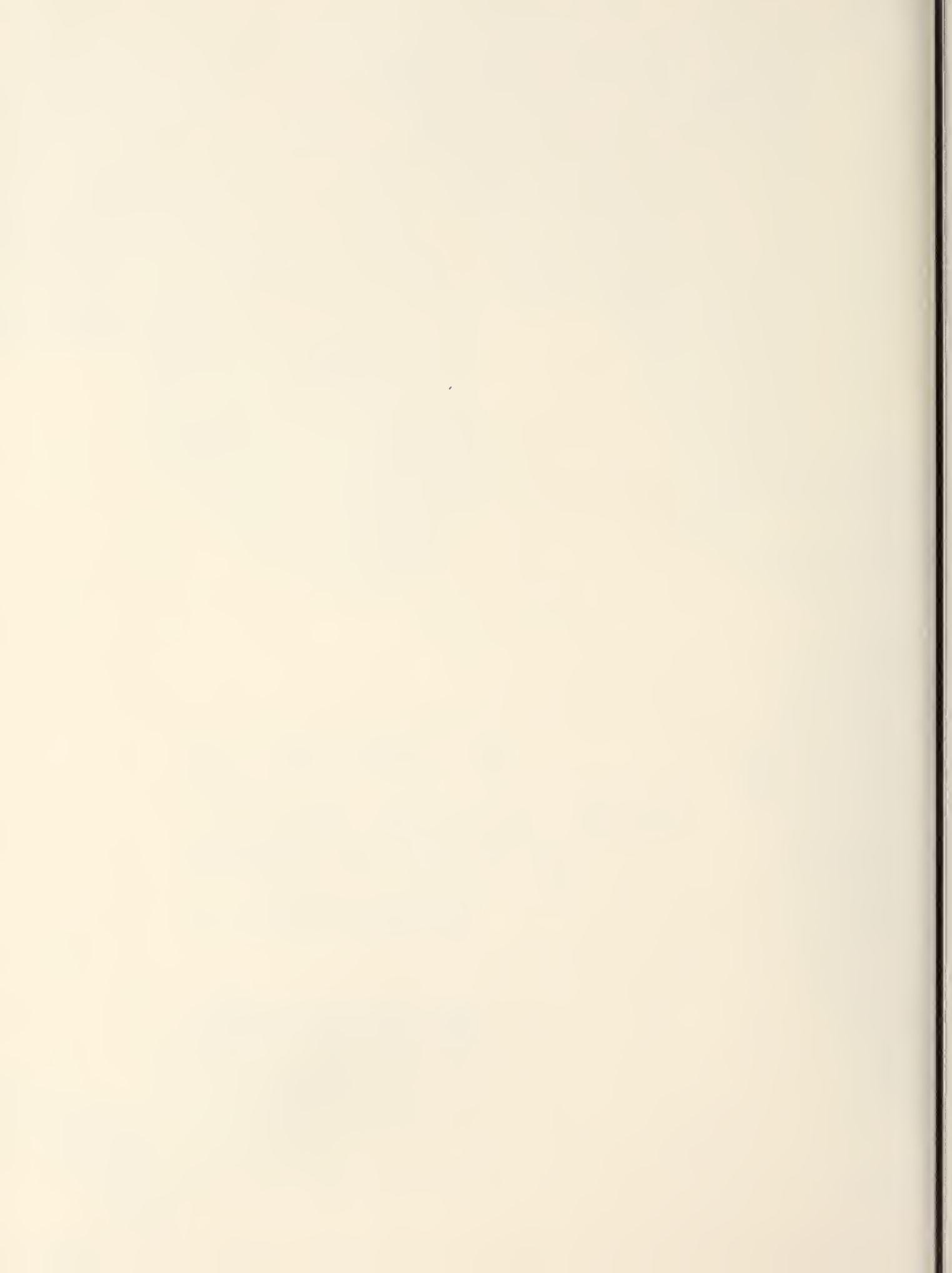
A DIURETIC THAT GIVES YOU PREDICTABLE CONTROL

Bumex[®] bumetanide/Roche

0.5-mg, 1-mg and 2-mg scored tablets; 2-ml ampuls
and 2-ml, 4-ml and 10-ml vials (0.25 mg/ml)

Please see adjacent page for references and summary of product information.
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